

13

ANNUAL SUMMARY

OF

BIRTHS, DEATHS, AND CAUSES OF DEATH

Registrar General

LONDON,

AND OTHER LARGE CITIES,

1880.

PUBLISHED BY THE AUTHORITY OF THE REGISTRAR GENERAL OF
BIRTHS, DEATHS, AND MARRIAGES IN ENGLAND.



LONDON:

PRINTED BY GEORGE E. EYRE AND WILLIAM SPOTTISWOODE,

PRINTERS TO THE QUEEN'S MOST EXCELLENT MAJESTY,

FOR HER MAJESTY'S STATIONERY OFFICE.

1881.

60

LONDON.

AREA.—The Area of London (the registration division so called) is 78,080 acres, or 122 square miles, including 2718 acres of the Thames; this is equal to 31,597 hectares, or 316 square kilometers. The length of the streets and roads is about 1500 miles, and their area nearly 12 square miles. The Area of London being 122 square miles is equal to a square of about 11 miles to the side. Assuming that it is crossed by straight roads at equal intervals, there would be 136 such roads, each 11 miles long and 142 yards apart. The Sewers have a length of about 2000 miles, and are equal to 182 sewers 11 miles in length, on an average 106 yards apart.

ELEVATION.—The population of London resides at a mean elevation of 39 feet (11·9 metres) above Trinity high-water mark; the elevation varying from 11 feet (3·4 metres) below high-water mark in Plumstead Marshes, to 429 feet (131 metres) above high-water mark in Hampstead.

HOUSES.—At the Census in 1871 there were within this area 417,767 inhabited houses, containing an average of 7·8 persons to a house, exactly corresponding with the proportion in 1861.

ANNUAL RATEABLE VALUE.—The Annual Rateable Value of Property in the Metropolis, in April 1881, as assessed in accordance with the Valuation (Metropolis) Act, 1869 = £27,405,488.* For Annual Rateable Value in 1871, see Table 6.

DENSITY (1871).—103 persons to a hectare; 42 persons to an acre; 26,674 to a square mile.

ANNUAL RATE OF INCREASE OF POPULATION PER CENT. . $\begin{cases} 1851-61. & 1\cdot73 \\ 1861-71. & 1\cdot50 \end{cases}$

1880.

POPULATION	$\begin{cases} \text{Males} & 1,714,999 \\ \text{Females} & 1,949,150 \end{cases}$	TOTAL	3,664,149
(Estimated to the middle of the year.)			
BIRTHS	$\begin{cases} \text{Males} & 67,514 \\ \text{Females} & 64,659 \end{cases}$	TOTAL	132,173
ANNUAL RATE OF BIRTHS PER 1000 OF THE POPULATION			
			36·2
DEATHS	$\begin{cases} \text{Males} & 41,702 \\ \text{Females} & 39,426 \end{cases}$	TOTAL	81,128
ANNUAL RATE OF MORTALITY PER 1000			
	$\begin{cases} \text{Males} & 24\cdot3 \\ \text{Females} & 20\cdot2 \end{cases}$	TOTAL	22·2
EXCESS OF REGISTERED BIRTHS OVER DEATHS			
			51,045
ESTIMATED INCREASE OF POPULATION			
			43,131

* This amount represents the Annual Rateable Value of Property within the District of the Metropolitan Board of Works, as defined by the Metropolis Local Management Act, 1855 (18 & 19 Vict. c. 120.) The District of the Metropolitan Board of Works is identical with that adopted for Poor Law and Registration purposes, except that the hamlet of Penge, in Croydon District, is situated within the District of the Metropolitan Board of Works, but is excluded from Registration London; and the hamlet of Mottingham, in Lewisham District, is included with Registration London, but excluded from the District of the Metropolitan Board.

ANNUAL SUMMARY.

LONDON, AND OTHER LARGE CITIES, 1880.

*General Register Office, Somerset House,
30th April 1881.*

The deaths registered in London in the year 1880 amounted to 81,128. This mortality was in the proportion of 22·2 deaths to each 1,000 inhabitants. Only on five other occasions in the last forty years has so low a death-rate as this been recorded, namely, in 1850, 1856, 1872, 1876, and 1877 ; and it will be noted that of these six years of low mortality no less than four occurred in the last decennium. Comparing the five groups of districts into which the metropolis is divided (Table 14), the death-rates in 1880 were lowest in the West and the North districts, highest in the East and Central, while the South held an intermediate position. These relative positions were in close accordance with the experience of former years.

Of each 1,000 deaths, 170 were assigned to one or other of the chief zymotic diseases enumerated in Table 11. This proportion corresponded with the average for the decennium, though much lower than the proportion in any of the three previous decennia, in which it was successively 209, 213, 213. It was higher than that of the immediately preceding year 1879, when the proportion did not exceed 144. This difference in two consecutive years was due in the main to the great prevalence of epidemic diarrhoea in the summer of 1880, and the unusual freedom from it in the cold summer of 1879: the deaths ascribed to this cause were 3,767 in 1880, but only 1,835 in 1879. The mortality from scarlet fever, diphtheria, and whooping-cough, also showed some excess above the average of the previous ten years; while the mortality from all kinds of continued fevers, as also from erysipelas, showed a large decline. The same was true of small-pox, for while the deaths referred to this heading numbered 475, the average for the ten preceding years, after making due allowance for difference of population, was 1,708. It must, however, be remembered that the previous ten years included the two great outbreaks of 1871-2 and 1877-8. If those exceptional years be omitted the small-pox mortality in 1880 was above the average, and contrasts most unfavourably with such years as 1874 and 1875, in which the small-pox deaths were only 57 and 46 respectively.

In 142, or 29·9 per cent., of the fatal cases of small-pox, no information was supplied as to whether the deceased had ever been vaccinated. Of those cases in which this important information was supplied, no less than 68·8 per cent. were certified to have been unvaccinated.

The births registered in London in 1880 numbered 132,173; and the excess of births over deaths, or the natural increase of the population, that is, irrespectively of emigration and immigration, was 51,045.

London proper is surrounded by a zone of rural or semi-rural districts. In this Outer Ring there are on an average but 1,659 inhabitants to a square mile, whereas there are 30,034 inhabitants to an equal area in Inner London. While the death-rate in the densely inhabited area was, as has been seen, 22·2 per 1,000, the rate in the outer and uncrowded belt was no more than 16·2, varying, however, in its different portions from 12·1 in Croydon with part of Godstone to 22·0 in West Ham with part of Chigwell.

The rate of mortality in the aggregate population of the twenty large English towns, which had averaged 24·2 and 23·2 per 1000 in the two preceding years, further declined to 22·7 during the 52 weeks of 1880. This rate was lower than that which prevailed in those towns in any of the ten preceding years, except in 1877, when it was 22·6; and was 1·6 per 1000 below the mean rate in those two years. The rate in London last year was, as we have seen, 22·2, while it averaged 23·1 in the nineteen provincial towns, which have an aggregate population slightly exceeding that of London. Compared with the mean rate in the preceding ten years, the rate in London showed a decrease of but 0·8 per 1000, while the average rate in the nineteen provincial towns was no less than 2·5 below the mean rate in the same period. The death-rate during last year in these nineteen provincial towns ranged from 18·7 in Portsmouth, 19·6 in Brighton, and 20·1 in Bristol, to 25·1 in Nottingham, 25·4 in Manchester, 25·8 in Salford, and 27·3 in Liverpool. The death-rate from the principal zymotic diseases (see Tables 3 and 4) averaged 4·0 in the twenty towns; it was 3·7 in London, and 4·3 in the nineteen provincial towns. The lowest rates from these diseases were 2·7 and 2·8 in Portsmouth and Brighton, and the highest 5·7 in Leicester, 5·9 in Norwich, 6·4 in Plymouth, and 6·8 in Salford. Of the 485 deaths from small-pox in the twenty towns (against 461 in 1879) no less than 475 occurred in London. Measles was less fatal than in 1879, but showed epidemic prevalence in Plymouth, Hull, Leicester, and Nottingham. Scarlet fever was proportionally most fatal in Sunderland, Norwich, Bristol, Oldham, and Salford. The rate of mortality from diphtheria in London was greater by more than 50 per cent. last year than the average rate in the nineteen provincial towns, although the death-rate from the disease showed a considerable excess in Portsmouth, Plymouth, and Leicester. The highest death-rates from whooping-cough occurred in Liverpool, Salford, Hull, and London. The death-rate from fever, principally enteric, averaged 0·31 per 1000 in the twenty towns, showing a slight increase upon the exceptionally low rate in 1879, which was 0·29; in London the fever rate was only 0·24, and the lowest on record, while it averaged 0·36 in the nineteen towns, against 0·29 in 1879. The fever death-rate in these nineteen towns last year ranged from 0·19 and 0·20 in Bristol and Birmingham, to 0·47 in Liverpool, 0·49 in Norwich, 0·55 in Portsmouth, 0·64 in Salford, and 0·65 in Sheffield. Diarrhœa was more fatal in the twenty towns in 1880 than it had been in any year since 1871, and caused a death-rate of 1·40 per 1000; this diarrhœa death-rate was equal to 1·04 in London, and averaged 1·76 in the nineteen provincial towns,

ranging in these nineteen towns from 0·90 in Bristol, 1·11 in Newcastle-upon-Tyne, and 1·16 in Portsmouth, to 2·24 in Norwich, 2·45 in Hull, 2·58 in Salford, and 3·05 in Leicester. Under the influence of exceptional summer diarrhoea fatality, infant mortality showed an increase last year in the twenty towns; the deaths under one year of age were equal to 169 per 1000 of the births registered, against 151 in the previous year, but this rate was 2 per 1000 below the average rate in the same towns in the ten preceding years 1870-79. Infant mortality last year was equal to 158 per 1000 in London, and averaged 179 in the nineteen provincial towns, among which it ranged from 146 and 148 in Bristol and Portsmouth, to 201 in Nottingham, 214 in Norwich, and 219 in Leicester. It will be seen that these infant death-rates were to a great extent governed by the varying fatality of diarrhoea.

In the fifty other large towns, represented by the entire registration districts or sub-districts most nearly corresponding with their boundaries, the death-rate last year averaged 21·5 per 1000, which, although slightly in excess of the rate in the same towns during the previous year, was 1·2 below the average rate in the twenty larger towns. The rates in these towns did not exceed 14·9 in Dover, 16·0 in Newport (Monmouth), and 17·9 in Cambridge: whereas they ranged upwards to 25·6 in Exeter, 29·2 in Preston, 29·5 in Stockport and Wigan, and 30·7 in Ashton-under-Lyne. The death-rate from the principal zymotic diseases, which averaged 3·8 in the fifty towns, exceeded 5·6 in each of the five last-mentioned towns having high death-rates. Infant mortality in these fifty towns averaged 171 per 1000, and slightly exceeded the average rate (169) in the twenty larger towns. The lowest proportions of infant mortality in these fifty towns were 131 in Dover, 132 in Colchester, and 134 in Newport (Monmouth); the proportions in the other towns ranged upwards to 201 in Stoke-upon-Trent, 203 in Northampton, 209 in Blackburn, 214 in Wigan, 219 in Ashton-under Lyne, and 230 in Preston.

In the three Indian capitals the rate of mortality in 1880 averaged 34·3 per 1000; it was 26·8 in Calcutta, 32·7 in Bombay, and 44·8 in Madras. Small-pox was fatally prevalent in each of the cities, but most so in Madras. Measles was severely epidemic in Bombay. The death-rate in Alexandria was 42·5, and showed an increase upon the high rate in 1879; small-pox was fatally prevalent.

In 22 European cities the mortality averaged 30·8, against 22·7 in the twenty large English towns. The lowest rates in these cities were 20·3 in Christiania, 22·9 in Geneva, 23·1 in The Hague, and 24·2 in Rotterdam; whereas the rates ranged upwards to 36·0 in Trieste, 37·3 in Buda-Pesth, 40·1 in Madrid, and 46·1 in St. Petersburg. The rate in Paris was equal to 29·0 per 1000, against 22·2 in London; the deaths included 2266 from small-pox, 2130 from diphtheria and croup, and 2105 from typhoid fever. The death-rate from "fever" in Paris in 1880 was nearly four times as great as in London; and that from small-pox and diphtheria more than eight times as great. In St. Petersburg, however, the death-rate from "fever" was nearly five times as great as it was in Paris. Small-pox was more or less fatally prevalent in Vienna, Buda-Pesth, Trieste, Rome, and Venice. In Berlin, the third largest European city, the rate was equal to 29·9 per 1000, and slightly exceeded the rate in Paris; this high rate was in great measure due to excessive zymotic fatality, especially of diphtheria and summer diarrhoeal diseases. The excessive rate in Munich (33·5) was also partly due to diphtheria and diarrhoea fatality.

The death-rate in four of the largest American cities averaged 23·6; it was 19·3 in Philadelphia, 19·7 in Baltimore, 23·4 in Brooklyn, and 28·5 in New York.

The low rates in Philadelphia and Baltimore, accompanied as they are by excessive zymotic fatality, suggest defective registration of deaths or an over-estimate of the population. Small-pox caused 421 deaths in Philadelphia. The death-rate from diphtheria and diarrhoeal diseases showed a considerable excess in New York.

THE DECENNIUM 1871-80.

The decennium which closed with the year 1880 was one of lower mortality in London than any of the preceding decennial periods, for which trustworthy data are forthcoming (Table 14).

Moreover, when the decennium itself is split up into two quinquennia, the second quinquennium (1876-80) is found to have had a lower mortality than the earlier one (1871-5).

These facts are strong evidence that the sanitary efforts of recent years have not been unfruitful; and especially so when it is borne in mind that the natural tendency of a huge and still growing town such as London, if left to itself, is not to become healthier but to deteriorate, owing to the increasing density of its population and the consequently increasing pollution of its air and soil. The baneful effects of the dense aggregation of people and its obstinate resistance to sanitary improvement are seen in the fact (Table 14) that that part of London in which the average annual mortality in the past ten years showed the smallest decline from that of previous decennia was the [part in which the density of the population was greatest, namely the Central districts.

The evidence in support of the position, that the lower death-rate of the last decennium was really due to improved sanitation, is rendered still stronger, if, instead of merely fixing our attention upon the total mortality, we also take into consideration its causes. For it will be found that the saving of life was almost entirely due to diminished mortality from causes whose destructive activity is especially amenable to sanitary interference, namely, the so-called zymotic diseases. The mortality from these had been practically stationary for three successive decennia, but fell in the last decennium no less than 25 per cent. below the previous level. Part of this gain doubtless can hardly be claimed as the result of sanitary reform, for a considerable fraction of it was due to the good fortune which has preserved us throughout the decennium from a visitation of Asiatic cholera. But the same objection cannot be made in the case of fever, under which heading are included several diseases, the diffusion of which, perhaps more than of any other maladies, is amenable to sanitary control. Now the death-rate ascribed to fever fell nearly 60 per cent. below the average of the three preceding decennia. The meaning of this will perhaps be better appreciated if stated in another form. Had, then, the death-rate from fever remained at its previous level, in London alone nearly 19,000 more persons would have died from this cause during the ten years, than as a matter of fact did die from it. It is probably a low estimate to say that for each fatal case of fever there are 4·4 more which are not fatal.* We may therefore conclude that sanitary measures have preserved more than 102,000 Londoners in the last ten years from being attacked by fever.

* This was Dr. Murchison's estimate in the case of enteric fever, based on a collection of 18,602 cases. Doubtless, most deaths referred in London to "fever" are cases of enteric fever.

Another zymotic disease in which the mortality fell considerably during the decennium was scarlet fever. The rate from this cause and from diphtheria, which must be taken in association with it, owing to the non-separation of the two in former years, fell 33 per cent. How far this fall was due to those unravelled causes which are conveniently called chance, and how far to the gradually increasing recognition of the value of rigorous isolation, it is impossible to say.

Of the other diseases of this class measles, whooping-cough, and diarrhœa, remained practically at their former average level.

One disease alone in the class showed exceptionally a rise, and no inconsiderable one. This was small-pox, which owing to the two great outbreaks of 1871-2 and 1877-8 gave a death-rate nearly 50 per cent. above the previous average. Doubtless there will be persons who will find in this fact a support of their opinion as to the uselessness of vaccination; but to most minds the truer lesson will appear to be, the necessity of enforcing vaccination with greater rigour, and with greater security for its efficiency.

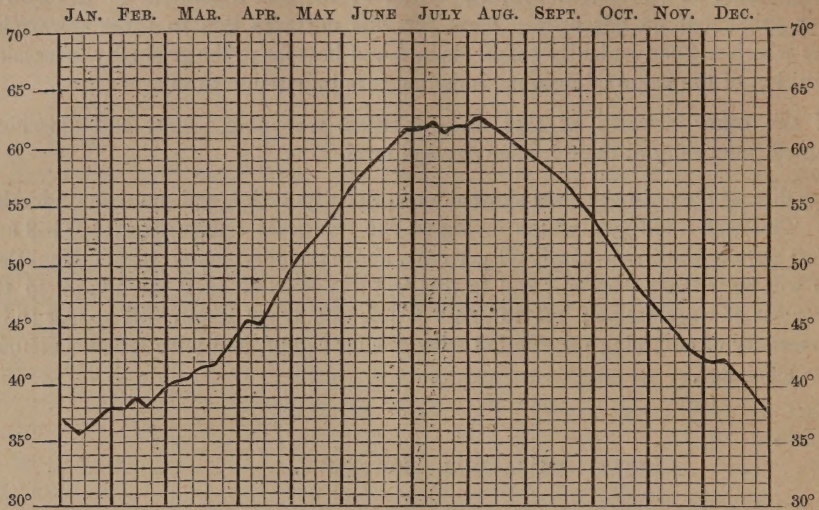
* SEASONAL MORTALITY.

The weekly Returns of mortality in London, published as they have been for such a long series of years, doubtless supply at the present time the best data to be had for estimating the relation between season and disease, as measured by the registered mortality from various causes. It has therefore been thought desirable to present the seasonal facts relating to a few of the more important causes of death in a diagrammatic form; and in most cases the same form of diagram has been adopted as was used by Dr. Mitchell and Mr. Buchan* some years back, in dealing with the London statistics for a shorter period of years than that for which statistics are now available. The scale, however, has been enlarged. The diagrams are divided into twelve monthly periods of four or five weeks, the weeks being distinguished by thin perpendicular lines. The thick horizontal central line represents the mean weekly mortality from the disease to which the diagram relates, on the supposition that the mortality is spread equally over the fifty-two weeks of the year, the fifty-third week, when it occurs, being ignored. The curved line represents the amount per cent. by which the average mortality of each week differs from this mean; when the percentage for any week is above the mean, the amount of the percentage excess is placed above the horizontal line representing the mean; and when the percentage is below the mean, it is placed below the line. Diagrams 2 and 3 have not, however, been constructed on this plan, but give the actual average mortality for each week without regard to the mean.

In most cases the curves are based on the data of forty years; in some, however, the basis is on a somewhat shorter period. The length of the period taken as a basis is in each case stated on the diagram. It must be remembered; firstly, that the data on which the curves are formed are the deaths *registered* in each week, not the deaths that *occurred* in the week; and that the registration is usually a few days later than death; and, secondly, that the curves relate to deaths, that is to the final termination of the disease, and not to the commencement of the attack; so that in estimating the effect of season in generating any disease, allowance must be made for the average duration of such disease when fatal.

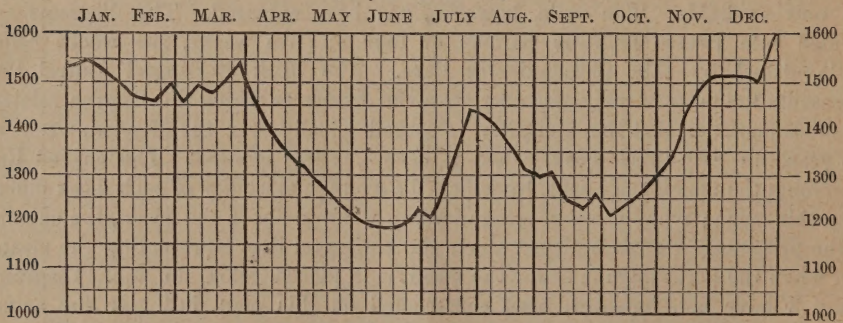
* Journal of the Scottish Meteorological Society, 1875.

Diagram 1.—MEAN TEMPERATURE (FAHRENHEIT) AT ROYAL OBSERVATORY, GREENWICH.
(50 years 1814-63.)



This diagram gives the mean weekly temperature on an average of fifty years, as deduced from Mr. Glaisher's daily records. With so large a basis as fifty years, it is of no practical importance that the period which it has been convenient to take in forming this temperature-curve is not precisely the same period as used in forming the mortality-curves.

Diagram 2.—DEATHS FROM ALL CAUSES.
(30 years 1851-80.)



This curve is marked by two distinct periods of elevation, the higher and the longer one falling in the winter months, the lower and the shorter in the summer. Between these are two periods of depression, which may be conveniently styled the spring and the autumn minimum-periods. The actual summer maximum is reached in the thirtieth week, and is well-defined. There is no one week in the winter period of elevation which can be selected as an equally well-defined maximum-week; for, though the fifty-second week would at first seem to be such, this may be in part accounted for by the fact that the Registrars make up their books at the close of each quarter, so that any outstanding entries will be made in its final week. Thus it will be seen, on examining the curve, that there is a slight jump upwards in the last week of each of the four quarters. The registered mortality is at its maximum at the close of December and early part of January; it then falls slightly, to rise again at the close of March to nearly its former level. From that time it falls

continuously till the twenty-fourth week, or mid-June, when it reaches the spring minimum. There is then a sharp rise to the thirtieth week, when the summer maximum is attained; then a somewhat less rapid fall to the fortieth week and autumn minimum, which is not quite so low as the spring minimum had been. Then begins a rise which leads up to the winter maximum-period.

Diagram 3.—DEATHS FROM RESPIRATORY ORGANS AND DIARRHŒA.

(Respiratory Organs 20 years 1861-80.)

(Diarrhœa 40 years 1840-79.)



It will be seen from this diagram that the chief features in the curve of mortality from all causes (Diag. 2) are due to two factors, diarrhœa and diseases of the

organs of respiration ; the winter elevation being mainly due to the latter, and the summer elevation to the former ; while the two periods of depression, or the spring and autumn minimum-periods, coincide pretty nearly with the times when the sums of the deaths from these two causes are smallest. The undulations, however, in the line of total weekly mortality are by no means entirely attributable to these two diseases ; for, when the deaths due to them are subtracted from the deaths from all causes, the curve of weekly mortality from the remaining causes will still be found to show periods of winter and summer elevation, and of spring and autumn decline.

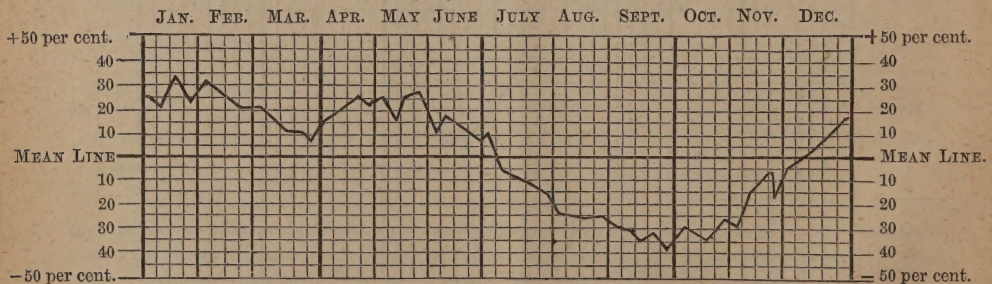
Diarrhœa.—The curve for this disease is very simple and very definite. During the greater part of the year the average deaths ascribed to this cause are under 15 per week ; about the twenty-second week a slight rise begins to be visible ; for a week or two this is very small and gradual, but about the twenty-fourth week it becomes extremely rapid, the mortality mounting up by strides until a maximum of about 195 is reached in the thirty-first week. A rapid fall, not, however, quite so rapid as the previous rise, now sets in, and by the forty-sixth week the average mortality is again below 20.

It is noteworthy that the week of maximum mortality is also the week of maximum mean temperature.

Diseases of Respiratory Organs.—For about four months, namely, from the forty-eighth week to the end of the year, and then on to the thirteenth week in the next year, the curve of mortality from these diseases shows a high table-land of elevation, with comparatively slight ups and downs, the actual highest points being in the fifth and second weeks, with a minor rise in the thirteenth week, which probably betrays the effects of March winds. In the fourteenth week a rapid fall sets in, and progresses without interruption until the thirty-fourth week, when the minimum point is reached. The fall which has occurred between the maximum in the fifth week to the minimum in the thirty-fourth is no less than from 454 deaths to 120. In the thirty-fifth week the curve again rises, and even more rapidly than it fell, mounting uninterruptedly till the elevated table-land before spoken of is reached in the forty-eighth week. The maximum mortality week follows the minimum-temperature week by an interval of three weeks.

Diagram 4.—SMALL-POX.

(40 years 1840–79.)



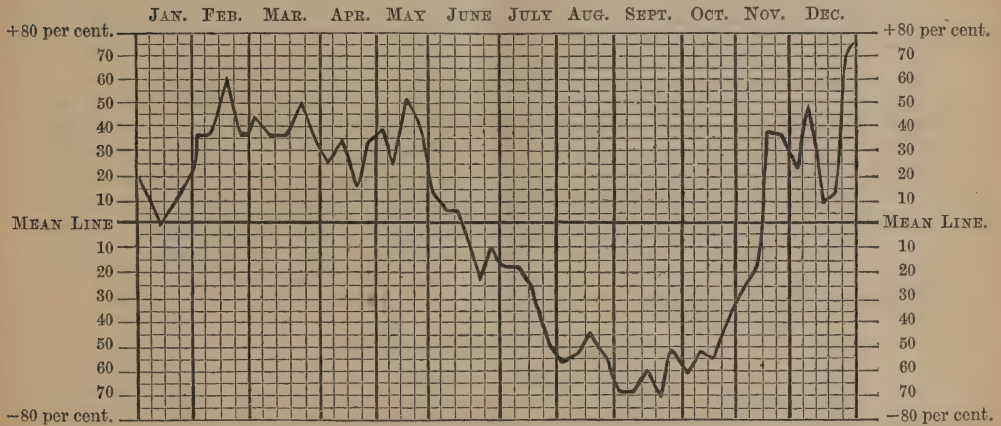
This diagram shows that small-pox mortality is above the average for six and a half months, and below the average for the rest of the year. The period of excess is from the fiftieth week, or middle of December, to the twenty-seventh week or beginning of July, the actual maximum falling in the third week. The period of deficiency coincides with the summer months, the actual minimum falling in the thirty-ninth week or end of September.

It is plain that this curve might be the result of either or both of two things. It might be due to there being a greater prevalence of small-pox in winter than in

summer, or to a larger per-centage of the cases proving fatal in the former than in the latter season; and the curves of all other diseases that show seasonal variations of mortality will also admit of a similar choice of explanations. Fortunately in the case of small-pox there are fair means of deciding which explanation is the true one; for the number of admissions each week into the small-pox hospitals furnishes a sufficiently exact test of the prevalence of the disease.

Diagram 5.—MEAN ADMISSIONS OF SMALL-POX PATIENTS TO THE METROPOLITAN ASYLUM HOSPITALS.

(5 years 1876-80.)

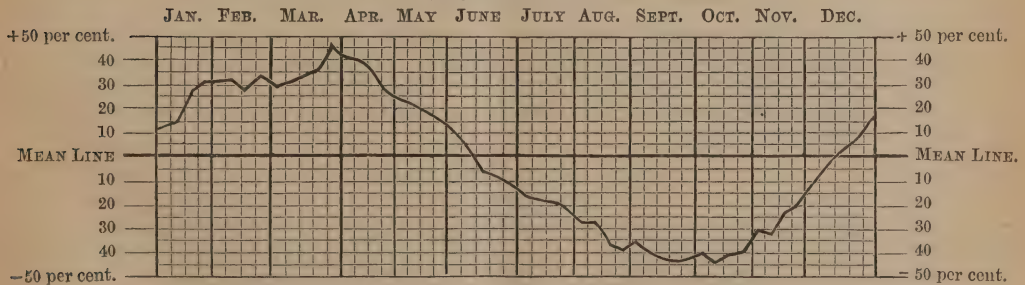


The mean line represents an average weekly number of 50 admissions.

This curve is based on the records of only five years, and is therefore very irregular. It is sufficient, however, to show that the curve of prevalence tallies very closely with the curve of mortality. It may, therefore, be concluded that small-pox not only kills more persons, but attacks more persons, in winter than in summer.

Diagram 6.—WHOOPING COUGH.

(40 years 1840-79.)

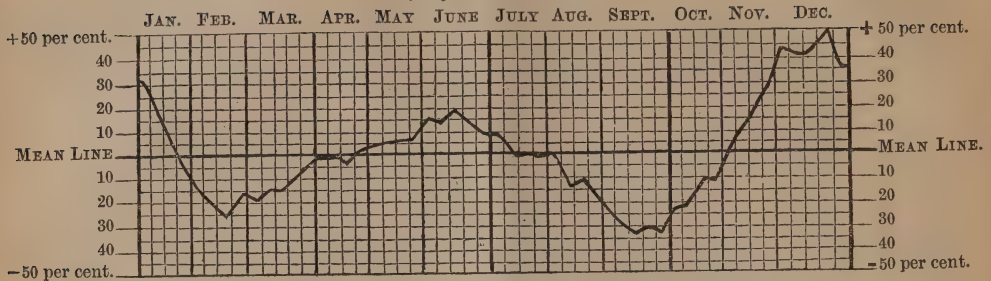


The mean line represents an average weekly number of 45 deaths.

Whooping-cough presents a curve very much resembling that of small-pox. Its minimum point is from the thirty-eighth to the forty-first week; it then rises and reaches its maximum in the thirteenth week, contributing with diseases of the respiratory organs to the noteworthy elevation which occurs at that time in the curve of deaths from all causes. From this point it falls uninterruptedly until it again reaches its minimum. The curve is above the mean line from the fiftieth week, through the end of the year, to the twenty-third, inclusively.

Diagram 7.—MEASLES.

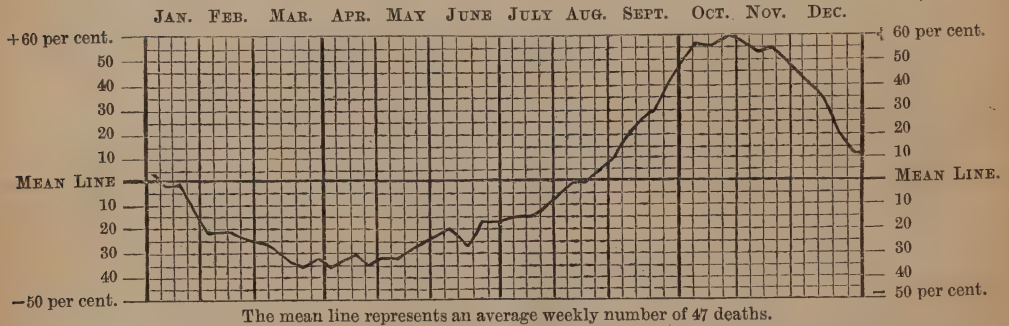
(40 years 1840-79.)



This curve is a very curious one, differing from any of those already given for single diseases, and also from any that follow, in consisting of two waves, and having therefore two maximum and two minimum periods. One wave, which reaches a higher elevation, but is of shorter duration than its fellow, begins to rise in the fortieth week, and, mounting rapidly, reaches its highest point in the fifty-first week; it then falls, even more rapidly than it rose, and touches its lowest point in the seventh week. The second wave then begins to rise, and, after slowly reaching its highest elevation in the twenty-fourth week, as slowly subsides to its minimum in the thirty-ninth.

Diagram 8.—SCARLET FEVER.

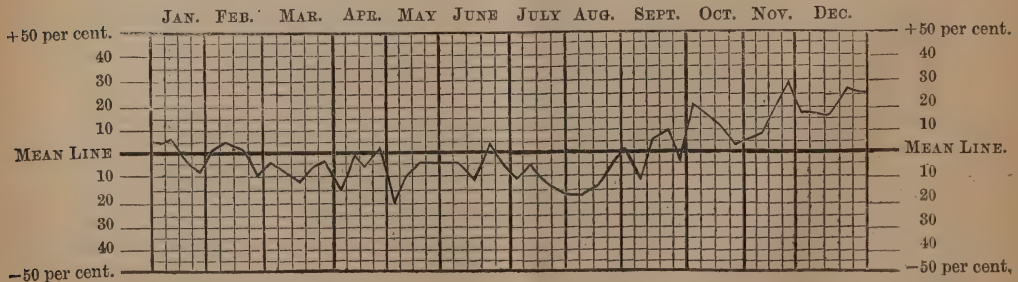
(40 years 1840-79.)



Scarlet fever forms a single wave which, beginning to rise about the middle of May, gradually attains its highest point in the forty-third week, or end of October, and then as gradually subsides to the end of March; from which time to the middle of May the mortality-line remains pretty much at a level, with some insignificant fluctuations.

Diagram 9.—DIPHTHERIA.

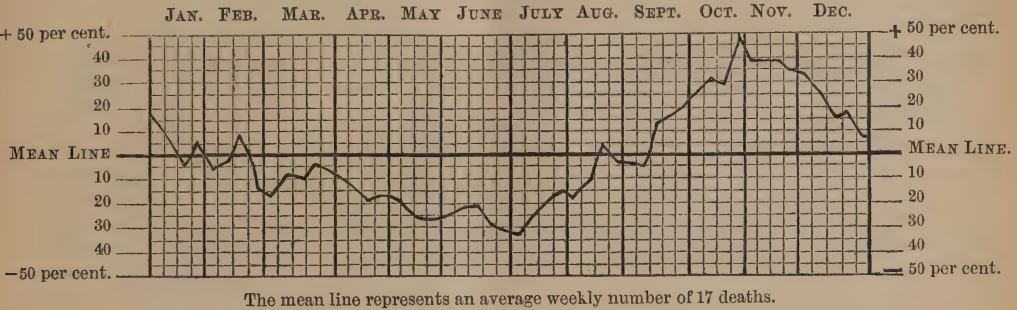
(20 years 1860-79.)



Diphtheria.—This curve is based on the records of only twenty years, and on very small weekly numbers, and therefore, as might be expected, presents a very irregular outline. It shows, however, a distinct maximum-period in the last quarter of the year, coinciding very closely with the maximum-period of scarlet fever, but beginning and ending a trifle later, and having both its maximum and its minimum points much less removed from the mean line.

Diagram 10.—ENTERIC FEVER.

(12 years 1869–80.)



Enteric fever resembles scarlet fever very closely in its curve, and reaches its maximum point at precisely the same time, namely in the forty-third week. Its minimum is in the twenty-seventh week, from which time it rises pretty steadily till it attains its maximum, and then subsides more slowly and with less regularity. The mortality is above the mean from about the middle of September to the end of January, and then, after a few small fluctuations about the mean for a week or two, falls definitely below it for the remainder of the annual period.

It appears from the records of the London Fever Hospital (1848–57) that out of an equal number of cases of enteric fever about as many die in one quarter of the year as another; the spring quarter, however, showing a slightly greater fatality among its cases than any one of the other three. The curve, therefore, in the diagram, which reaches its highest point in the latter part of the year, can only be explained by admitting that enteric fever is more prevalent at that period, and not merely more severe; that there are more cases as well as more deaths.

It will be noticed that the curves given by enteric fever, scarlet fever, and diphtheria nearly resemble each other, their maximum and minimum periods closely coinciding; and also that a similar resemblance exists between two curves of small-pox and of whooping-cough. The two forms of curve contrast strongly with each other; as may be best seen by super-imposing the scarlet fever curve upon the whooping-cough curve, when it will be found that the maximum and minimum periods in the one are inverted in the other. The measles curve differs again from both, and may be said to combine the two.

TABLES.

TABLE 1.—Population; Persons to an Acre; Births and Deaths; Annual Birth and Death Rates; Mean Temperature and Rainfall, in the Year 1880, in London and Twenty-two other Large Towns of the United Kingdom.

CITIES AND BOROUGHES.	ESTI- MATED POPU- LATION in the middle of the Year 1880.*	PER- SONS to an Acre. †	BIRTHS in 52 Weeks ending 1st Jan. 1881.	DEATHS in 52 Weeks ending 1st Jan. 1881.	ANNUAL RATE per 1000 living, of						MEAN TEMPE- RATURE in 52 Weeks ending 1st Jan. 1881.	RAIN- FALL in inches in 52 Weeks ending 1st Jan. 1881.
					BIRTHS in 52 Weeks ending 1st Jan. 1881.	DEATHS in 52 or 53 Weeks in each Year.				DEATHS in 52 Weeks ending 1st Jan. 1881.		
						1876.	1877.	1878.	1879.			
In 20 Towns of the UNITED KINGDOM†	7,499,468	37·5	269,673	169,382	36·1	23·6	22·7	24·2	23·2	22·7	47·9	32·57
LONDON - - -	3,664,149	48·6	132,173	81,128	36·2	22·3	21·9	23·5	23·3	22·2	49·1	29·09
BRIGHTON - - -	107,321	45·6	3,207	2,094	30·0	19·6	18·7	21·2	19·0	19·6	48·6	29·37
PORTSMOUTH - - -	134,224	29·9	4,399	2,507	32·9	22·1	17·4	19·0	16·7	18·7	—	—
NORWICH - - -	85,827	11·5	2,948	2,113	34·5	21·9	21·0	24·6	22·0	24·7	—	—
PLYMOUTH - - -	74,993	53·8	2,353	1,837	31·5	22·1	21·6	25·3	22·4	24·6	50·4	29·47
BRISTOL - - -	213,586	48·0	7,195	4,276	33·8	22·6	21·8	21·4	21·1	20·1	48·1	37·03
WOLVERHAMPTON - -	75,970	22·4	2,802	1,598	37·0	23·8	24·2	23·3	22·7	21·1	45·6	29·44
BIRMINGHAM - - -	394,738	47·0	15,169	8,172	38·6	22·7	24·2	25·5	23·2	20·8	—	—
LEICESTER - - -	129,912	40·6	4,830	2,988	37·3	23·1	21·5	20·8	21·6	23·1	—	—
NOTTINGHAM - - -	173,627	17·4	6,419	4,339	37·1	22·0	21·2	21·0	22·6	25·1	47·8	35·54
LIVERPOOL - - -	544,056	104·4	20,783	14,811	38·3	27·6	26·5	29·4	27·1	27·3	47·7	30·70
MANCHESTER - - -	363,130	84·6	12,775	9,185	35·3	29·2	27·4	27·9	26·9	25·4	—	—
SALFORD - - -	185,786	35·9	7,102	4,786	38·4	28·3	25·1	25·6	24·9	25·8	—	—
OLDHAM - - -	115,413	24·7	8,854	2,676	33·5	26·0	24·2	25·8	21·7	23·3	—	—
BRADFORD - - -	197,196	27·3	6,343	4,109	32·3	23·9	21·9	22·5	21·2	20·9	47·3	36·51
LEEDS - - -	318,929	14·8	11,346	6,688	35·7	25·1	22·3	23·8	22·6	21·0	47·6	33·27
SHEFFIELD - - -	304,938	15·5	10,723	6,410	35·3	24·3	21·9	25·0	21·3	21·1	47·4	39·75
HULL - - -	149,627	41·2	5,650	3,532	37·9	22·9	21·7	24·3	22·3	23·7	46·4	34·15
SUNDERLAND - - -	116,730	42·2	4,282	2,860	36·8	21·0	22·6	25·6	21·9	24·6	49·1	26·99
NEWCASTLE-ON-TYNE	149,366	27·8	5,320	3,273	35·7	22·8	22·4	23·8	23·6	22·0	—	—
EDINBURGH - - -	229,839	54·8	7,505	4,923	32·8	20·5	21·1	22·1	19·7	21·5	—	—
GLASGOW - - -	589,598	97·7	13,773	13,273	31·9	25·3	24·8	24·9	21·7	22·6	—	—
DUBLIN - - -	314,666	81·3	10,060	11,308	32·1	25·8	28·0	29·6	35·1	36·1	47·7	37·12

NOTE.—The deaths in Birmingham, Manchester, and Bristol include paupers belonging to these cities who died in Workhouses situate outside the Municipal boundaries.

* The figures in this column, excepting those for Nottingham, Salford, Oldham, and Dublin, are the numbers enumerated at the Census in April 1871, raised to the middle of 1880 by the addition of $\frac{9}{10}$ times the annual rate of increase which prevailed between 1861 and 1871. The rate of increase of population in Nottingham, Salford, and Oldham having since 1871 exceeded that which prevailed during the ten years 1861-71, revised estimates have been adopted for those boroughs, based upon special returns of inhabited houses within those boroughs. The population of Dublin is taken as stationary at the number enumerated in April 1871.

† For density of population per acre in the several Registration Districts of London in 1871, see Table 17.

TABLE 2.—Mean Temperature, and Annual Rate of Mortality per 1000 Persons living in Twenty English Towns, in each Week of 1880.

Number of Week.	WEEKS ENDING	MEAN TEMPERATURE AT GREENWICH.		ANNUAL RATE OF MORTALITY PER 1000 IN																					
		Fahrenheit.	Centigrade.	TWENTY TOWNS.	LONDON.	BRIGHTON.	PORTSMOUTH.	NORWICH.	PLYMOUTH.	BRISTOL.	WOLVERHAMPTON.	BIRMINGHAM.	LEICESTER.	NOTTINGHAM.	LIVERPOOL.	MANCHESTER.	SALFORD.	OLDHAM.	BRADFORD.	LEEDS.	SHEFFIELD.	HULL.	SUNDERLAND.	NEWCASTLE-ON-TYNE.	
YEAR (of 52 Weeks ending 1st Jan. 1881.)		° 47.9	° 8.83	22.7	22.2	19.6	18.7	24.7	24.6	20.1	21.1	20.8	23.1	25.1	27.3	25.4	25.8	23.3	20.9	21.0	21.1	23.7	24.6	22.7	
1	Jan.	10	34.8	1.56	24.0	25.0	19.9	20.2	17.6	35.5	26.4	23.4	23.3	17.7	22.8	28.3	25.0	21.9	15.8	20.1	19.8	20.5	25.1	21.0	21.3
2	"	17	33.1	0.62	24.2	24.6	16.0	19.1	23.1	27.1	16.9	24.0	25.1	18.1	24.6	28.1	27.6	23.9	23.1	20.1	17.3	27.0	27.2	26.4	26.5
3	"	24	29.7	-1.23	26.0	27.1	20.9	23.3	23.1	27.1	23.7	22.0	25.1	22.9	30.3	28.3	30.7	23.9	19.0	23.3	23.6	21.6	28.6	19.2	22.7
4	"	31	29.2	-1.56	29.7	31.3	27.2	21.0	24.9	32.0	24.9	16.5	26.2	28.5	30.3	31.7	34.9	32.3	29.8	24.1	27.2	21.4	35.2	24.3	27.2
5	Feb.	7	38.8	3.78	37.0	48.1	23.3	26.4	29.8	26.4	20.8	16.5	21.2	22.5	32.1	27.8	31.6	26.7	22.2	25.4	27.3	22.1	32.4	28.6	21.3
6	"	14	40.6	4.78	30.1	35.5	19.9	20.2	24.3	30.6	24.7	25.4	23.1	19.7	31.2	29.9	26.1	25.6	23.1	25.9	19.3	21.4	26.5	22.4	28.6
7	"	21	46.7	8.17	26.0	28.7	12.2	18.3	35.3	37.6	24.9	19.9	22.3	19.7	30.6	24.3	26.3	23.9	19.9	21.4	21.4	21.6	27.1	20.1	21.0
8	"	28	40.5	4.72	23.1	23.7	19.0	23.3	23.7	32.0	19.3	14.4	20.5	18.5	31.8	27.0	24.3	21.6	26.7	16.9	17.0	21.4	25.1	21.0	24.4
9	March	6	48.5	9.17	22.1	22.9	19.9	19.4	20.7	28.5	18.8	19.9	19.0	21.7	25.5	24.6	22.6	21.9	22.2	17.5	20.6	20.9	20.2	19.7	22.0
10	"	13	46.3	7.95	21.4	20.5	17.5	15.6	24.9	31.3	21.0	19.2	21.7	24.5	22.8	22.5	25.9	22.5	22.6	20.6	21.6	19.0	24.4	24.6	21.0
11	"	20	41.3	5.17	21.4	20.9	10.7	19.1	24.3	30.6	18.3	17.9	18.4	16.5	28.5	23.6	28.3	23.1	34.8	20.9	19.8	21.4	17.4	20.6	21.7
12	"	27	42.4	5.78	21.9	21.4	11.7	17.5	23.7	32.0	22.7	19.9	22.7	19.3	26.7	23.7	24.0	22.2	22.6	23.0	20.3	22.4	20.2	22.8	21.0
13	April	3	44.9	7.17	24.9	24.7	24.8	14.4	21.3	34.1	23.2	18.5	23.7	23.3	35.5	27.2	31.8	29.5	29.8	19.6	20.6	20.2	29.3	22.4	22.4
14	"	10	44.8	7.12	22.5	21.8	18.5	17.5	28.6	31.3	21.5	24.0	22.7	16.9	22.8	26.0	28.6	23.6	26.2	20.1	17.2	23.4	21.6	25.0	24.8
15	"	17	46.4	8.00	22.7	21.6	23.3	16.3	28.6	29.9	19.6	22.7	23.4	22.9	28.5	27.7	26.7	22.7	27.6	22.5	16.5	22.4	19.5	23.7	28.6
16	"	24	51.9	11.06	21.3	20.2	19.0	13.6	24.9	32.0	19.6	21.3	20.9	13.7	38.3	23.7	23.6	27.5	22.6	21.7	19.6	24.8	22.7	25.0	20.3
17	May	1	44.8	7.12	21.0	19.8	14.1	15.6	21.9	36.2	18.1	14.4	20.2	12.5	37.9	28.1	26.1	21.3	25.8	21.2	20.3	19.5	17.8	17.0	20.0
18	"	8	47.1	8.39	21.2	20.2	18.0	16.7	21.3	38.3	20.5	23.4	18.9	17.7	22.8	25.0	28.0	30.3	16.3	22.0	18.8	25.2	15.7	20.6	16.8
19	"	15	52.1	11.17	21.1	19.8	18.0	20.2	15.8	30.6	19.3	22.7	22.5	17.7	32.4	27.4	25.1	23.3	17.6	22.5	17.8	20.9	22.3	23.7	21.3
20	"	22	53.9	12.17	20.5	18.5	18.5	14.4	24.9	32.7	18.6	21.3	20.1	18.1	18.9	29.9	29.8	20.8	19.1	19.0	22.1	18.8	23.7	21.7	21.7
21	"	29	58.4	14.66	20.1	19.0	20.9	18.2	23.3	17.8	22.0	15.8	18.8	18.5	20.4	23.4	26.1	28.6	28.9	19.1	16.5	19.5	16.7	22.4	23.8
22	June	5	51.7	10.95	19.4	18.6	14.6	13.6	20.1	12.3	19.0	13.1	16.5	14.9	21.0	24.5	23.4	21.1	22.6	14.0	21.4	19.3	17.8	17.9	23.4
23	"	12	53.9	12.17	19.2	18.4	13.1	17.5	20.7	19.5	24.2	16.5	14.9	15.3	22.5	26.8	28.3	19.7	19.4	17.2	17.8	18.1	18.1	22.8	18.2
24	"	19	58.9	14.94	18.9	17.7	14.6	12.4	26.7	15.3	18.6	17.9	18.0	14.4	18.3	26.9	21.3	22.5	19.0	20.4	15.7	22.3	19.2	25.0	16.1
25	"	26	59.9	15.50	18.9	18.1	12.6	17.9	25.2	15.3	14.4	18.5	18.5	18.9	23.1	23.6	24.0	15.7	27.1	16.9	19.1	18.3	17.1	21.6	21.0
26	July	3	62.3	16.84	18.9	18.5	18.0	12.4	24.9	15.3	17.4	14.4	18.4	22.9	15.3	25.6	19.1	21.3	29.8	18.5	15.7	17.1	20.2	23.7	17.8
27	"	10	59.0	15.00	19.2	18.9	14.6	15.6	29.8	20.2	14.7	17.2	13.2	18.9	18.3	25.3	21.4	24.7	28.9	20.4	17.0	19.0	10.1	24.1	18.5
28	"	17	63.1	17.28	20.1	20.5	18.0	15.6	27.4	23.0	15.9	18.5	16.9	15.7	22.8	25.8	20.7	16.6	24.9	17.2	16.9	18.7	16.7	23.7	19.6
29	"	24	63.7	17.61	20.6	21.1	17.5	17.9	22.5	13.9	18.1	24.7	18.5	23.7	13.8	26.0	19.4	22.7	22.9	17.5	20.6	19.5	16.0	22.8	14.0
30	"	31	62.2	16.78	23.3	24.9	33.5	20.6	24.3	20.2	15.2	19.9	21.0	22.5	19.5	28.3	24.6	22.2	24.4	15.6	22.4	15.1	19.9	19.7	21.3
31	August	7	60.2	15.67	23.9	24.2	24.8	23.3	24.3	23.7	18.3	20.6	24.5	22.9	21.9	26.2	28.4	30.6	20.8	16.9	23.4	22.8	22.7	19.2	18.2
32	"	14	63.8	17.67	24.8	23.8	24.3	17.1	25.5	26.4	16.6	15.8	26.2	33.3	25.5	27.8	26.4	34.7	26.7	23.0	29.0	23.8	23.4	27.7	23.4
33	"	21	63.8	17.67	24.3	23.1	16.0	22.2	23.1	34.8	16.4	19.9	24.2	34.5	28.5	29.5	31.1	33.3	11.2	25.6	25.7	29.1	39.7	29.9	24.4
34	"	28	62.7	17.06	25.1	21.2	21.4	21.0	31.6	20.9	16.4	27.5	27.0	34.5	31.8	35.0	32.9	33.3	11.9	23.3	26.9	29.8	31.0	30.8	26.2
35	Sept.	4	67.3	19.61	24.6	20.8	22.8	22.2	35.3	19.5	21.7	27.5	22.9	38.2	34.6	34.4	27.4	35.1	19.4	24.1	27.5	27.4	26.8	37.6	26.5
36	"	11	62.8	17.12	25.4	19.8	31.6	28.4	31.0	23.7	19.6	38.5	23.5	38.6	32.4	38.6	29.9	33.0	30.7	28.8	27.0	28.6	30.0	35.8	30.4
37	"	18	55.7	13.17	25.0	20.5	27.7	25.7	35.5	16.7	20.0	29.5	27.2	36.5	28.8	34.3	26.7	38.8	30.3	27.5	35.6	36.3	126.9		
38	"	25	56.4	13.55	24.1	20.5	22.2	24.6	37.7	21.2	16.9	25.4	21.8	31.1	27.3	38.2	26.0	30.9	21.7	26.5	26.8	25.7	35.9	35.3	27.9
39	October	2	56.6	13.67	21.3	19.3	21.4	16.7	24.9	12.5	16.6	24.0	18.1	28.9	21.6	27.6	28.9	21.1	26.4	22.6	25.4	24.2	18.1	30.0	31.7
40	"	9	50.5	10.28	21.7	19.9	15.6	19.4	22.5	14.6	21.5	22.0	17.2	35.3	24.6	30.6	25.1	31.2	18.1	23.0	21.1	16.9	24.8	34.4	22.7
41	"	16	48.0	8.80	21.4	20.0	23.8	24.9	20.7	22.3	15.4	18.5	20.5	29.7	21.6	24.8	19.8	30.6	26.7	23.3	21.8	19.0	28.9	25.5	21.3
42	"	23	42.9	6.06	22.6	21.6	20.4	17.6	24.9	26.4	19.3	22.7	16.5	32.5	22.2	30.2	20.5	26.6	19.4	27.5	19.8	20.0	33.2	21.9	23.1
43	"	30	42.0	5.56	22.6	21.7	26.3	21.4	25.5	21.6	22.7	22.2	32.5	24.3	26.9	24.4	25.3	24.9	19.3	20.3	21.4	27.5	22.8	21.3	
44	Nov.	6	39.3	4.06	22.7	21.6	21.9	15.6	24.9	18.8	24.2	25.4	20.5	26.1	21.6	30.3	25.9	30.1	25.3	21.7	21.6	18.3	35.5	13.9	
45	"	13	46.3	7.95	22.8	23.3	21.4	19.4	28.0	18.8	21.7	12.7	21.7	22.1	20.1	25.3	24.9	26.1	19.4	20.0	19.3	18.7	21.6	29.1	
46	"	20	40.8	4.89	21.2	21.2	19.3	21.0	24.3	19.5	23.9	19.2	16.1	22.9	22.5	25.0	22.2	24.7	24.0	19.6	19.0	18.6	24.1	25.1	21.7
47	"	27	42.4	5.78	22.1	21.7	18.0																		

TABLE 3.—Deaths in 20 large English Towns in the 52 Weeks ending 1st January 1881.
(Estimated aggregate population in middle of 1880, 7,499,468; viz., 3,664,149 in London, and 3,835,319 in the 19 other Towns; see Table 1.)

CITIES AND BOROUGHES. (Municipal Boundaries for all except LONDON.)	DEATHS from ALL CAUSES.	The DEATHS registered in the 52 Weeks included												Inquest Cases. °	In Public Institutions.
		Deaths of		Deaths from											
		Infants under 1 Year of Age.	Persons aged 60 Years and up- wards.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Fever.	Diarrhoea.	Violence.				
In 20 TOWNS - -	169,382	45,531	32,320	485	3667	6263	873	6059	2281	10496	5547	10127	24778		
LONDON - - -	81128	20907	16949	475	1501	3073	541	3438	886	3767	2725	5243	14607		
BRIGHTON - - -	2094	507	561	-	22	79	3	40	22	130	59	93	304		
PORTSMOUTH- - -	2507	649	554	-	54	8	22	48	74	154	68	155	271		
NORWICH - - -	2113	630	537	-	12	188	3	64	42	192	51	127	181		
PLYMOUTH - - -	1837	442	389	-	284	4	23	50	21	93	29	83	114		
BRISTOL- - - -	4276	1047	1036	2	74	239	12	99	40	193	155	306	662		
WOLVERHAMPTON -	1598	456	353	-	6	42	5	40	16	115	52	83	238		
BIRMINGHAM - - -	8172	2614	1448	2	62	122	54	219	79	772	342	663	1085		
LEICESTER - - -	2988	1060	481	-	148	92	24	26	51	395	68	190	314		
NOTTINGHAM - - -	4339	1293	835	-	265	134	6	87	58	273	120	244	303		
LIVERPOOL - - -	14811	3961	2041	2	283	465	58	663	256	1028	663	751	2034		
MANCHESTER - - -	9185	2293	1460	2	200	327	33	296	85	589	300	758	1532		
SALFORD - - - -	4786	1406	602	-	135	279	23	219	119	477	105	186	502		
OLDHAM - - - -	2676	693	421	-	92	126	8	65	27	141	57	67	206		
BRADFORD - - -	4109	1103	617	1	66	189	18	115	55	274	77	129	306		
LEEDS - - - -	6688	1968	1270	-	66	126	12	110	122	611	221	396	538		
SHEFFIELD - - -	6410	1762	1056	1	79	269	14	145	199	563	117	186	617		
HULL - - - -	3532	1105	656	-	204	61	5	144	47	366	106	120	307		
SUNDERLAND - - -	2860	726	455	-	99	305	5	71	46	197	90	145	231		
NEWCASTLE-ON-TYNE -	3273	909	599	-	15	135	4	120	36	166	142	202	376		

TABLE 4.—Analysis of the Mortality in 20 large English Towns in the 52 Weeks ending 1st January 1881.

CITIES AND BOROUGHES.	ANNUAL RATE OF MORTALITY per 1000 living at all Ages.			DEATHS under 1 Year to 1000 Births Registered.	ANNUAL RATE OF MORTALITY per 1000 living.		PER-CENTAGE, TO TOTAL DEATHS, OF DEATHS REGISTERED	
	ALL CAUSES.	SEVEN ZYMOTIC DISEASES.	VIOLENCE.		Aged 1 to 60 Years.	Aged 60 Years and upwards.	From Certificate of the Coroner. (Inquests.)	In Public Insti- tutions.
In 20 TOWNS - -	22·7	4·0	0·74	169	13·5	73·2	6·0	14·6
LONDON - - - -	22·2	3·7	0·75	158	13·1	74·6	6·5	18·0
BRIGHTON - - -	19·6	2·8	0·55	158	10·7	67·2	4·4	14·5
PORTSMOUTH - -	18·7	2·7	0·51	148	10·7	70·6	6·2	10·8
NORWICH - - - -	24·7	5·9	0·60	214	12·6	64·7	6·0	8·6
PLYMOUTH - - -	24·6	6·4	0·39	188	15·1	62·8	4·5	6·2
BRISTOL - - - -	20·1	3·1	0·73	146	11·4	69·3	7·2	15·5
WOLVERHAMPTON -	21·1	3·0	0·69	163	11·4	82·1	5·2	14·9
BIRMINGHAM - -	20·8	3·3	0·87	172	11·4	72·7	8·1	13·3
LEICESTER - - -	23·1	5·7	0·53	219	12·4	59·1	6·4	10·5
NOTTINGHAM - -	25·1	4·8	0·69	201	14·2	66·2	5·6	7·0
LIVERPOOL - - -	27·3	5·1	1·22	191	17·6	79·2	5·1	13·7
MANCHESTER - -	25·4	4·2	0·83	179	16·4	79·7	8·3	17·2
SALFORD - - - -	25·8	6·8	0·57	198	16·4	65·6	3·9	10·5
OLDHAM - - - -	23·3	4·0	0·50	180	14·8	70·9	2·5	7·7
BRADFORD - - -	20·9	3·7	0·39	174	13·2	64·7	3·1	7·4
LEEDS - - - - -	21·0	3·3	0·70	173	11·9	76·2	5·9	8·0
SHEFFIELD - - -	21·1	4·2	0·83	164	12·9	74·6	2·9	9·6
HULL - - - - -	23·7	5·5	0·71	196	13·1	69·5	3·4	8·7
SUNDERLAND - -	24·6	6·2	0·77	170	15·8	69·4	5·1	8·1
NEWCASTLE-ON-TYNE -	22·0	3·2	0·95	171	13·0	73·7	6·2	11·5

TABLE 5.—LONDON, 1871. Of the **3,254,260** enumerated Inhabitants, the **Number of each Sex** born in LONDON, and the **Number born elsewhere.**

	MALES.			FEMALES.			EXCESS OF FEMALES.		
	Under 20 Years of Age.	20 Years and upwards.	TOTAL.	TOTAL.	Under 20 Years of Age.	20 Years and upwards.	TOTAL.	Under 20 Years of Age.	20 Years and upwards.
TOTAL INHABITANTS	680,353	842,793	1,523,151	1,731,109	708,690	1,022,419	207,958	28,332	179,626
BORN IN LONDON -	576,659	398,802	975,461	1,080,115	590,370	489,745	104,654	13,711	90,943
BORN OUT OF LONDON	103,699	443,991	547,690	650,994	118,320	532,674	103,304	14,621	88,683

Note.—The enumerated Population of London in 1871 included 2,055,576 of both sexes born in London and 1,198,684 born elsewhere. Of those *under 20 Years of Age* 1,167,029 were born in London, 222,019 were born elsewhere; of those *aged 20 and upwards* 888,547 were born in London, 976,665 were born elsewhere.

TABLE 6.—Area, Population, Inhabited Houses, Rateable Value of GREATER LONDON, 1871.

	AREA (including Tidal Water).		Enumerated POPULATION, 1871.	DENSITY OF POPULA- TION in 1871.		INHABITED HOUSES, 1871.	RATEABLE VALUE, 1871.*
	In Acres.	In Square Miles.		Persons to an Acre.	Persons to a Square Mile.		
GREATER LONDON -	446,494	698	3,885,641	8·7	5,567	528,804	£ 23,177,380
INNER LONDON -	78,080	122	3,254,260	41·7	26,674	417,767	19,796,257
OUTER RING -	368,414	576	631,381	1·7	1,096	111,037	3,381,123

* The Rateable Value of London in 1871 was furnished by the Local Government Board.

TABLE 7.—Population; Births and Deaths in GREATER LONDON (THE METROPOLITAN AND CITY POLICE DISTRICTS), during the 52 Weeks ending 1st January 1881.

	Estimated POPULATION, middle of 1880.	ANNUAL RATE per 1000 living.			TOTAL BIRTHS.	TOTAL DEATHS.	The DEATHS registered in the 52 Weeks include										
		Births.	Deaths.	Seven Zymotic Diseases.			Deaths of		Deaths from							Deaths in Public Institutions.	
							Infants under 1 Year of Age.	Persons aged 60 Years and upwards.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Fever.	Diarrhoea.		
GREATER } LONDON }	4,619,652	35·3	21·0	3·5	162,943	96,954	25,186	20,708	491	1766	3527	670	3965	1061	4623	16270	
INNER LONDON	3,664,149	36·2	22·2	3·7	132,173	81,128	20,907	16,949	475	1501	3073	541	3438	886	3767	14607	
OUTER RING -	955,503*	32·3	16·6†	2·5	30,770	15,826	4,279	3,759	16	265	454	129‡	527	175	856	1663	

* The Population of the Outer Ring is estimated by deducting the estimated Population of Inner London from that of Greater London calculated in accordance with the rate of increase which prevailed between 1861 and 1871.

† The Death-rate in the Outer Ring corrected for the deaths in the three Middlesex County Lunatic Asylums (see Table 9.) was equal to 16·2 per 1000.

TABLE 3.—Population; Births and Deaths during 1880 in Fifty large Town Districts.

District Num- bers.	TOWNS.	ESTIMATED PO- PULATION in the middle of the Year 1880.*	REGISTERED during the Year 1880.		ANNUAL RATE to 1000 living during the Year 1880.			DEATHS under One Year to 1000 Births registered.	DISTRICTS and SUB-DISTRICTS, taken as approximately representing the several Towns.
			Births.	Deaths.	Births.	Deaths.	Seven Symonds Place.		
	TOTAL of 50 TOWNS -	2,953,113	103,910	63,813	35'0	21'5	3'8	171	Total of the under-mentioned Districts and Sub-districts.
	II.—SOUTH EASTERN COS.								
45	Rochester and Chatham P -	66,868	1994	1245	29'7	18'6	3'0	149	Entire District of Medway.
49	Maidstone - - - M† -	29,257	968	546	32'7	18'4	2'6	153	West and East Sub-districts.
63	Dover - - - M -	39,032	1193	582	30'5	14'9	1'5	131	Entire District. {Sub-districts.
67	Hastings - - - M† -	41,048	1189	827	28'9	20'1	2'4	161	All Saints and St. Mary-in-the-Castle
96	Southampton - - M† -	52,789	1749	1146	33'0	21'6	3'2	168	Entire District.
118	Reading - - - M† -	42,148	1581	843	37'4	19'9	3'5	170	Entire District.
	III.—SOUTH MIDLAND COS.								
149	Oxford - - - M -	44,908	1547	968	34'4	21'5	1'9	157	Entire District, and St. Clement
159	Northampton - - M† -	58,519	2219	1201	37'8	20'5	3'9	203	Sub-district of Headington.
173	Cambridge - - - M -	33,981	1041	610	30'6	17'9	2'4	163	St. Giles & All Saints Sub-districts.
	IV.—EASTERN COUNTIES.								
195	Colchester - - - M -	28,924	914	633	31'5	21'8	4'1	132	Entire District.
213	Ipswich - - - M -	48,001	1629	1023	33'8	21'3	3'8	170	Entire District.
219	Yarmouth - - - M† -	51,454	1661	975	32'2	18'9	3'6	184	Entire District and Gorleston
	V.—SOUTH WESTERN COS.								
272	Exeter - - - M† -	37,294	1166	956	31'2	25'6	6'3	193	Entire District.
279	Devonport - - - M -	49,449	1580	1056	30'9	21'3	5'2	145	Entire District of Stoke Damerel.
317	Bath - - - M† -	54,593	1343	1131	24'5	20'7	2'8	156	Bathwick, Lyncombe, Walcot, and Lansdown Sub-districts.
	VI.—WEST MIDLAND COS.								
335	Cheltenham - - - M† -	44,097	1076	874	24'3	19'8	2'2	176	Cheltenham Sub-district.
351	Shrewsbury - - - M -	28,684	874	551	30'4	19'2	2'3	138	St. Mary & St. Chad Sub-districts of Atcham.
364	Stoke-upon-Trent - P -	176,090	6477	3934	36'7	22'3	3'9	201	Entire Dis. of Stoke-on-Trent & Tunstall and Burslem Sub-dis. of Wolstanton.
373	Walsall - - - M† -	59,215	2251	1150	37'9	19'4	3'5	159	Bloxwich & Walsall Sub-districts.
374	West Bromwich - Impt. D† -	54,378	2353	1114	43'2	20'4	3'2	151	South-west and North-east Sub-ds.
375	Dudley - - - M† -	50,253	1905	1054	37'8	20'9	3'2	184	Dudley Sub-district.
380	Worcester - - - M -	33,815	1026	678	30'3	20'0	2'7	167	Entire District.
393	Coventry - - - M -	42,056	1434	918	34'0	21'8	4'0	160	Entire District.
	VII.—NORTH MIDLAND COS.								
421	Lincoln - - - M† -	37,734	1434	877	39'2	23'2	4'0	180	Home Sub-district.
438	Derby - - - M† -	74,980	2857	1595	38'0	21'2	3'0	151	Entire District.
	VIII.—NORTH WESTERN COS.								
445	Stockport - - - M† -	58,946	2330	1742	39'4	29'5	6'6	197	Heaton Norris, and Stockport 1st and 2d Sub-districts.
446	Macclesfield - - - M† -	33,734	1087	754	32'1	22'3	1'7	158	East and West Macclesfield and Sutton Sub-districts.
452	Chester - - - M† -	52,007	1601	980	30'7	18'8	3'2	154	Castle and Cathedral Sub-districts.
454	Birkenhead - - - M -	80,640	2965	1604	36'7	19'8	3'3	136	Birkenhead and Tranmere Sub-districts.
457	St. Helen's - - - M† -	53,301	2422	1239	45'3	23'7	5'1	177	St. Helen's Sub-district of Prescot.
459	Wigan - - - M† -	45,968	2071	1353	44'9	29'5	7'4	214	Wigan Sub-district.
462	Bolton - - - M† -	93,230	3213	1950	34'4	20'9	4'7	169	Little, Eastern, and Western Bolton Sub-districts.
463	Bury - - - M† -	48,997	1879	1184	38'2	24'1	4'1	163	South and North Bury, and Elton Sub-districts.
468	Ashton-under-Lyne - M† -	31,441	1254	968	39'8	30'7	5'7	219	Ashton Town Sub-district.
470	Rochdale - - - M† -	83,799	2337	1711	27'8	20'4	3'1	163	Castleton Further and Nearer, Spotland Nearer, Wardleworth, & Wuerdles Sub-ds.
474	Blackburn - - - M† -	91,011	3386	2230	37'1	24'4	4'9	209	Blackburn Sub-district.
476	Preston - - - M† -	87,750	3484	2569	39'6	29'2	7'3	230	Trinity, St. Peter, and St. John Sub-districts.
481a	Barrow-in-Furness - M -	41,331	1759	779	42'4	18'8	3'2	148	Entire District.
	IX.—YORKSHIRE.								
494	Huddersfield - - M† -	83,243	2698	1815	32'3	21'7	2'6	158	Almondbury, Kirkheaton, Hud- dersfield, & Lockwood Sub-districts.
495	Halifax - - - M† -	96,714	2846	1810	29'3	18'7	2'0	160	Southowram, Halifax, and North- owram Sub-districts.
515	York - - - M† -	61,632	2186	1413	35'4	22'9	4'0	173	Bootham, Micklegate, and Walm- gate Sub-districts.
532a	Middlesbrough - M† -	57,707	2118	1259	36'6	21'8	4'6	183	Middlesbrough Sub-district.
	X.—NORTHERN COUNTIES.								
551	South Shields - - M -	120,518	4241	2224	35'1	18'4	2'8	157	Entire District.
552	Gateshead - - - M† -	67,839	2586	1514	38'0	22'3	5'3	188	Gateshead Sub-district.
554	Tynemouth - - - M† -	46,170	1638	970	35'4	21'0	4'1	173	North Shields & Tynemouth Sub-districts.
569	Carlisle - - - M† -	35,902	1375	813	38'2	22'6	3'2	140	St. Cuthbert & St. Mary Sub-districts.
	XI.—MONMOUTHSH. & WALES.								
582	Newport (Monmouth) M† -	35,552	1274	572	35'7	16'0	1'8	134	Newport Sub-district.
583	Cardiff - - - M† -	87,741	3315	1773	37'7	20'2	3'2	180	Cardiff Sub-district.
585	Merthyr Tydfil - - P -	102,898	3115	2138	30'2	20'7	2'9	154	Lower and Upper Merthyr Tydfil, and Aberdare Sub-districts.
588	Swansea - - - M -	80,205	3269	1927	40'6	24'0	6'1	141	Llangafelach, Swansea, and Llan- samlet Sub-districts.

NOTE.—The letter M or P affixed to the name of each Town denotes whether the limits, which the District or Sub-districts named in the last column approximately represent, are Municipal or Parliamentary. In the D. signifies Improvement District.

* For method of framing these estimates see note * to Table I. As the population of Devonport, Macclesfield, and Ashton-under-Lyne declined between 1861 and 1871, the numbers for these towns are estimated to have remained stationary since 1871. The estimates of the present population of Dudley, Coventry, Wigan, Barrow-in-Furness, and Middlesbrough have been based upon local information as to the increase of the inhabited houses in these boroughs.

† The rates of mortality for these towns have been corrected by the exclusion of a proportional number of deaths occurring in County Hospitals and Lunatic Asylums, situate within the District or Sub-districts here taken as representing the town, or by the exclusion or addition of a proportion of the deaths in Union Workhouses in cases where only a portion of the Union is embraced by the area taken, or where the Workhouse is situated outside that area.

Births, Deaths, and Annual Rate of Mortality.

xix

TABLE 9.—LONDON—OUTER RING. Population; Births; Deaths from All Causes and from the Seven Zymotic Diseases; and the Annual Rate of Mortality during the 52 Weeks ending 1st January 1880.

DISTRICTS AND SUB-DISTRICTS.	ESTIMATED POPULATION in the middle of the Year 1880.	BIRTHS.	DEATHS.	DEATHS from Seven Zymotic Diseases.	ANNUAL RATE PER 1000 LIVING.		
					Births.	Deaths.	Seven Zymotic Diseases.
LONDON—OUTER RING	955,503	30,770	15,826	2422	32·3	16·2	2·5
EPSOM (part of)	32,802	838	637	88	25·6	14·1	2·7
CROYDON and part of GODSTONE	148,512	3614	1786	293	24·4	12·1	2·0
KINGSTON (part of)	82,497	2248	1116	140	27·3	13·6	1·7
RICHMOND	36,153	992	630	79	27·5	17·5	2·2
BROMLEY (part of)	47,655	1394	651	124	29·4	13·7	2·6
BEXLEY	29,057	790	373	49	27·3	13·1	1·7
STAINES	25,578	684	377	59	26·8	14·9	2·3
UXBRIDGE	28,501	814	531	54	28·7	15·6	1·9
BRENTFORD	101,645	3392	1687	210	33·5	16·8	2·1
HENDON and BUSHEY	76,870	1933	978	149	25·2	12·9	1·9
BARNET and part of HATFIELD	33,603	919	617	48	27·4	13·0	1·4
EDMONTON	120,461	4626	2215	305	38·5	18·6	2·5
WEST HAM and part of CHIGWELL	174,679	7772	3828	760	44·6	22·0	4·4
ROMFORD (part of)	17,490	754	375	64	43·3	21·5	3·7

Note.—In estimating the population of these Districts, upon which the birth and death-rates have been calculated, it has been assumed that the rate of increase in Greater London since 1871 has been the same as that which prevailed between 1861 and 1871; the estimate for the Outer Ring is obtained by the deduction of the estimated population of Inner London from that of Greater London. The estimates for the suburban districts have been adjusted to cast to the estimated total of the population of the Outer Ring, obtained in the manner above described. In calculating the rates of mortality for the above Table, a proportion of the deaths recorded in the three Middlesex County Lunatic Asylums, situated in the Districts of Epsom, Uxbridge, and Barnet, has been excluded as belonging to the Middlesex portion of Registration or Inner London, and the remainder distributed among the Middlesex Districts in the Outer Ring.

TABLE 10.—Births and Deaths in 1880 in 30 Foreign Cities.

CITIES.	POPULATION (enumerated or estimated).	BIRTHS. Exclusive of Stillborn.	DEATHS.	ANNUAL RATE per 1000 Persons living.		DEATHS FROM SEVEN ZYMOTIC DISEASES.							
				Births.	Deaths.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus & Typhoid Fevers.	Diarrhoeal Diseases.	†
CALCUTTA	429,535	-	11518	-	26·8	114	24	-	11	63	476	2026	
BOMBAY	644,405	17122	21067	26·6	32·7	226	1308	?	?	?	?	1749	
MADRAS	397,552	15622	17820	39·4	44·8	859	107	?	?	?	?	2263	
PARIS	1,988,806	57031	57644	28·7	29·0	2266	974	360	2130*	514	2105	4943	
GENEVA	70,721	1622	1620	22·9	22·9	9	27	2	40*	60	17	?	
BRUSSELS	177,086	5531	4967	31·2	28·0	4	32	9	6	34	64	629	
AMSTERDAM	316,593	11601	8626	36·6	27·2	-	381	36	20	181	160	73	
ROTTERDAM	150,378	5764	3645	38·3	24·2	-	16	16	14	51	14	53	
THE HAGUE	114,396	4491	2639	39·3	23·1	-	26	4	5	29	14	50	
COPENHAGEN	235,254	8661	5885	36·8	25·0	3	49	154	74	116	60	516	
STOCKHOLM	160,921	-	4634	-	28·8	1	43	386	97	81	61	669	
CHRISTIANIA	116,801	3942	2370	33·7	20·3	16	-	15	68	110	30	353	
ST. PETERSBURGH	669,741	-	30900	-	46·1	187	143	315	355	113	3194	4904	
BERLIN	1,087,904	42642	32565	39·2	29·9	-	367	865	1190	350	529	6037	
HAMBURG (State)	427,793	16922	11102	39·5	26·0	-	181	478	310*	176	111	1033	
DRESDEN	218,000	7626	5433	34·5	24·9	8	57	82	274*	92	53	?	
BRESLAU	276,000	10130	8557	36·7	31·0	2	115	55	66	7	108	?	
MUNICH	234,000	8948	7849	38·2	33·5	-	97	88	363*	52	143	1467	
VIENNA	746,243	28610	20326	38·3	27·2	528	92	174	458	146	173	1629	
BUDA-PESTH	327,788	13296	12236	40·6	37·3	327	113	122	191	23	228	1282	
TRIESTE	128,233	-	4614	-	36·0	122	30	136*	22	56	413		
MADRID	396,976	-	15909	-	40·1	1202	779	43	242	413	689	1439	
ROME	298,960	7597	10489	37·3	33·0	549	140	130	343*	6	193	794	
TURIN	236,658	7063	6817	29·8	28·8	20	39	6	214*	120	259	?	
VENICE	141,004	3375	3896	23·9	27·6	116	11	-	35*	12	79	444	
ALEXANDRIA	212,034	9106	9007	42·9	42·5	157	?	1	43	379	?	?	
NEW YORK	1,111,941	-	31745	-	28·5	30	478	612	1380	272	403	3941	
BROOKLYN	564,448	-	13221	-	23·4	2	156	222	1118	111	71	1602	
PHILADELPHIA	901,380	-	17394	-	19·3	421	106	287	316	101	505	1018	
BALTIMORE	410,000	-	8080	-	19·7	1	14	396	297	150	201	600	

* Including deaths from croup.

† Including diarrhoea, dysentery, and cholera.

TABLE 11.—LONDON.

YEARS.	Estimated Population in the middle of each Year.	MARRIAGES.	BIRTHS.	DEATHS.	Deaths of Infants under One Year of Age.	DEATHS FROM THE PRINCIPAL				
						Total from Diseases in Cols. 8-15.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.
Cols. - 1	2	3	4	5	6	7	8	9	10	11
Periods of 10 Years.	(Means.)									
1841-50	2,103,487	207,502	665,661	523,110	104,461	109,244	8,416	13,011	18,314	
1851-60	2,570,489	264,153	864,503	610,473	133,775	129,913	7,150	13,766	26,317	
1861-70	3,018,193	306,870	1,067,988	736,342	173,454	156,988	8,347	17,338	34,291	5,323
1871-80	3,466,486	334,632	1,244,304	790,262	196,569	134,723	15,551	17,940	21,265	4,333
1841	1,878,205	18,093	57,342	45,507	9,197	6,611	1053	973	663	
1842	1,917,108	17,689	60,240	45,400	9,438	6,486	360	1293	1224	
1843	1,954,041	18,493	61,097	48,718	9,944	8,668	438	1442	1867	
1844	2,033,816	20,126	64,329	51,110	9,769	9,798	1804	1182	3029	
1845	2,073,298	21,770	65,884	48,318	9,796	8,536	909	2318	1085	
1846	2,113,535	22,272	69,882	49,450	10,959	8,185	257	747	928	
1847	2,202,673	21,580	68,331	59,131	11,344	11,156	955	1778	1433	
1848	2,244,837	21,006	71,880	57,771	11,300	15,411	1620	1144	4767	
1849	2,287,302	22,119	72,612	68,755	12,272	26,325	521	1154	2149	
1850	2,330,084	24,354	74,564	48,950	10,452	8,268	499	980	1169	
1851	2,373,081	26,084	78,300	55,488	12,081	10,990	1062	1297	1285	
1852	2,416,367	26,474	81,250	54,638	12,272	10,614	1159	595	2571	
1853	2,459,899	27,462	82,254	60,069	12,981	11,859	211	978	2016	
1854	2,503,662	26,128	84,885	73,697	13,896	24,783	694	1409	3477	
1855	2,547,639	25,018	85,632	61,942	12,959	11,624	1039	878	2611	
1856	2,591,815	26,047	87,430	57,274	13,130	11,034	531	1479	1819	
1857	2,636,174	25,924	89,577	59,103	13,931	11,147	156	1341	1599	
1858	2,680,700	25,768	89,012	64,093	14,280	13,588	242	2369	4184	
1859	2,725,374	27,263	92,909	61,860	13,976	13,818	1158	1330	3481	773
1860	2,770,181	27,987	93,414	62,309	14,269	10,456	898	2090	2017	484
1861	2,815,101	26,876	97,064	65,251	15,076	12,509	217	1062	2381	674
1862	2,860,117	28,839	97,850	67,371	13,999	14,605	366	2394	3492	730
1863	2,905,210	29,963	102,119	71,060	15,433	16,973	1996	1634	4955	799
1864	2,950,361	31,541	102,625	78,238	17,314	16,445	547	2785	3244	611
1865	2,995,551	33,364	106,803	78,551	18,284	14,490	640	1390	2179	451
1866	3,040,761	33,592	108,665	80,453	18,733	20,356	1391	2220	1892	462
1867	3,085,971	31,689	112,691	70,924	17,973	12,057	1345	1143	1451	447
1868	3,131,160	30,607	113,937	73,798	18,891	15,121	597	1062	2016	495
1869	3,176,308	30,017	112,332	78,082	19,078	17,695	275	1456	5841	340
1870	3,221,394	30,332	113,902	77,634	18,673	16,728	973	1449	6040	354
1871	3,266,398	31,843	112,617	80,430	19,244	19,675	7912	1427	1902	344
1872	3,311,298	33,155	118,440	71,355	18,740	12,903	1786	1680	918	287
1873	3,356,073	33,425	119,015	75,459	19,007	11,388	113	2149	645	320
1874	3,400,701	33,248	121,950	76,813	18,966	11,450	57	1680	2648	419
1875	3,445,160	34,072	123,266	81,964	19,980	13,448	46	1408	3677	551
1876	3,489,428	34,007	127,444	77,671	19,954	12,671	736	1720	2308	387
1877	3,533,484	33,593	128,092	77,440	18,685	12,320	2551	2387	1580	316
1878	3,577,304	33,742	129,065	84,188	21,276	14,743	1417	1500	1808	566
1879	3,620,868	33,477	131,542	83,805	19,448	12,063	450	2475	2661	575
1880	3,664,149	34,070	132,173	81,128	20,907	13,815	475	1501	3073	541

NOTE.—Wandsworth was not included in Registration London until 1844, Lewisham and Hampstead were not population in each year refers to the same area as the various columns relating to Births and Deaths.

For the first ten years the deaths from the various diseases are taken from summaries of 52 or 53 weeks, and in calculating the proportions of births and deaths to population, a correction was made for leap years and

LONDON.

ZYMOTIC DISEASES.				Proportions, to 1,000 Persons Living, of				Deaths from diseases in Cols. 8-15 to 100 Deaths from All Causes.	Annual Mortality of Infants under One Year of Age to 1000 Births.	YEARS.
Whooping-cough.	Fever.	Diarrhoea.	Cholera.	Persons Married.	Births.	Deaths.				
						From All Causes.	From Diseases in Cols 8-15.			
12	13	14	15	16	17	18	19	20	21	22
18,079	20,890	14,946	15,588	19'7	31'6	24'9	5'20	20'9	157	Periods of 10 Years.
22,497	22,597	24,700	12,886	20'6	33'6	23'7	5'05	21'3	155	1841-50
26,550	27,149	30,487	7,403	20'3	35'4	24'4	5'20	21'3	162	1851-60
28,716	12,997	32,491	1,330	—	35'9	22'8	3'89	17'0	158	1861-70
										1871-80
2278	1151	465	28	19'3	30'5	24'2	3'53	14'6	160	1841
1603	1184	704	118	18'5	31'4	23'7	3'39	14'3	157	1842
1908	2094	834	85	19'3	31'3	24'9	4'45	17'8	163	1843
1292	1721	705	65	19'7	31'5	25'1	4'83	19'4	152	1844
1816	1324	841	43	21'0	31'8	23'3	4'03	17'2	149	1845
2035	1838	2152	228	21'1	33'1	23'4	3'88	16'7	157	1846
1600	3297	1976	117	19'6	31'0	26'8	4'98	18'5	166	1847
1630	3685	1913	652	18'7	31'7	25'7	6'88	26'7	158	1848
2349	2564	3463	14,125	19'3	31'7	30'1	11'54	38'5	169	1849
1568	2032	1893	127	20'9	32'0	21'0	3'56	17'0	140	1850
2185	2374	2574	213	22'0	33'0	23'4	4'63	19'8	154	1851
1569	2183	2375	162	21'9	33'5	22'5	4'38	19'4	151	1852
2667	2617	2487	883	22'3	33'4	24'4	4'82	19'7	158	1853
2502	2816	3147	10,738	20'9	33'9	29'4	9'90	33'6	164	1854
2438	2460	2049	149	19'6	33'6	24'3	4'66	18'8	152	1855
2092	2717	2244	152	20'0	33'6	22'0	4'25	19'3	150	1856
2527	2195	3115	214	19'7	34'0	22'4	4'23	18'9	156	1857
2708	1919	2035	181	19'2	33'2	23'9	5'07	21'2	160	1858
1742	1840	3301	193	20'0	34'1	22'7	5'07	22'3	150	1859
2067	1476	1373	51	20'2	33'6	22'4	3'76	16'8	153	1860
3548	1848	2611	168	19'1	34'5	23'2	4'44	19'2	155	1861
2168	3673	1736	106	20'2	34'2	23'6	5'11	21'7	143	1862
2175	2871	2384	159	20'6	35'2	24'5	5'84	23'9	151	1863
2423	3782	2894	156	21'3	34'7	26'4	5'66	21'0	169	1864
2335	3217	3611	196	22'3	35'7	24'5	4'84	19'7	171	1865
2960	2688	3147	5596	22'1	35'7	26'5	6'69	25'3	172	1866
2278	2184	2969	240	20'5	36'5	23'0	3'91	17'0	159	1867
2338	2468	4021	324	19'5	36'3	23'5	4'82	20'5	166	1868
3769	2400	3395	219	18'9	35'4	24'6	5'57	22'7	170	1869
1956	2018	3719	239	18'9	35'4	24'1	5'19	21'5	164	1870
2291	1691	3887	221	19'5	34'5	24'6	6'02	24'5	171	1871
3259	1303	3509	181	20'0	35'7	21'5	3'89	18'1	158	1872
2620	1510	3869	162	19'9	35'5	22'5	3'39	15'1	160	1873
1867	1528	3128	123	19'6	35'9	22'6	3'37	14'9	156	1874
3204	1217	3207	108	19'8	35'8	23'8	3'90	16'4	162	1875
2737	1130	3518	135	19'4	36'4	22'2	3'62	16'3	157	1876
1817	1252	2329	88	19'0	36'3	21'9	3'49	15'9	146	1877
4483	1381	3464	124	18'9	36'1	23'5	4'12	17'5	164	1878
2934	1080	1835	53	18'5	36'3	23'1	3'33	14'4	148	1879
3438	886	3767	134	18'6	36'2	22'2	3'78	17'0	158	1880

included until 1847; thus the figures in the above Table do not relate to the same area throughout, but] the proportions are calculated on the deaths registered in the same time. All the figures for 1880 are for 52 weeks, also for years represented by 52 or 53 weeks.

TABLE 12.—Population at different Ages in London, as enumerated at the Censuses of 1851, 1861, and 1871, with the Numbers of Males and Females at the various Ages in 1871.

—	ALL AGES.	Under 5 Years.	5—	10—	15—	20—	25—	30—	35—	40—	45—	50—	55—	60—	65—	70—	75—	80—	85—	90—	95—	100 & upwards.
1851.																						
Persons	2,362,236	293,562	243,648	216,369	213,694	241,401	226,632	201,491	164,588	144,381	110,426	97,937	63,903	39,043	36,440	26,168	13,474	6,371	2,025	553	123	27
1861.																						
Persons	2,803,989	362,296	300,259	264,349	259,155	277,389	252,035	224,767	190,517	175,900	134,190	112,728	78,187	71,316	42,936	31,103	16,194	7,527	2,394	595	131	21
1871.																						
Persons	3,254,260	422,629	349,686	309,658	307,075	321,585	296,884	255,089	212,398	192,556	153,728	137,349	93,370	80,895	52,388	37,810	18,710	8,894	2,822	669	139	26
Males -	1,523,151	211,032	172,967	153,138	143,221	143,822	135,030	117,966	97,834	89,452	71,604	62,951	42,053	34,814	21,471	14,869	6,803	3,008	894	173	34	6
Females	1,731,109	211,597	176,719	156,520	163,854	177,763	161,845	137,123	114,564	103,104	82,124	74,298	51,317	46,081	30,917	22,941	11,907	5,886	1,928	496	105	20

NOTE.—In England the proportion of Females to Males in the population in 1871 was as 105 to 100; in London it was as 114 to 100, and corresponded with the proportion which prevailed at the 1861 Census. The excess of Females is especially apparent at the ages 15-20, and in each subsequent quinquennium.

TABLE 13.—Births and Deaths in London in the 52 or 53 Weeks of Fifteen Years 1866 to 1880.

YEARS.	1866	1867	1868 (53 weeks)	1869	1870	1871	1872	1873 (53 weeks)	1874	1875	1876	1877	1878	1879 (53 weeks)	1880
BIRTHS* - - -	107992	112264	115744	111930	113499	112535	117200	121100	121394	122871	127015	127257	129184	134096	132173
DEATHS* - - -	80129	70588	74908	77933	77278	80332	70893	76634	76606	81513	77411	77002	83695	85540	81128
Excess of BIRTHS over DEATHS - }	27863	41676	40836	33997	36221	32203	46307	44466	44788	41358	49604	50255	45489	48556	51045
BIRTHS - { Males -	54956	57402	58838	56876	58031	57034	59861	61602	61865	62674	64920	65122	65944	67793	67514
BIRTHS - { Females -	53036	54862	56906	55054	55468	55501	57339	59498	59529	60197	62095	62135	63240	66303	64659
DEATHS - { Males -	40978	36276	38390	39812	39730	40685	36401	39001	39144	41917	40001	39806	42865	43693	41702
DEATHS - { Females -	39151	34312	36518	38121	37548	39647	34492	37633	37462	39596	37410	37196	40830	41847	39426
DEATHS in FIVE GROUPS of DISTRICTS:—															
West - - - -	11499	11244	12066	12004	13097	12665	11197	12183	12407	13371	12895	11956	13687	13880	13044
North - - - -	17301	16138	16529	17059	17394	19295	16247	16846	17268	17970	17548	18116	18824	19248	18521
Central - - -	9770	8804	8983	9149	8748	8291	7682	8210	8118	8099	7362	7239	7367	7687	6611
East - - - -	20574	14818	16067	17506	15313	16702	15175	16702	16671	16887	15976	16396	16878	17829	16657
South - - - -	20985	19584	21263	22215	22226	23379	20592	22693	22142	25186	23630	23295	26939	26896	26296

* The births and deaths in this Table are compiled from the Weekly Returns, which embrace 364 days, and in three years 371 days; and for this reason the deaths for all the years previously to 1880 differ from the numbers in 29 Districts (see Table 17), which are, except those for 1880, derived from the returns for complete years, from 1st January to 31st December.

TABLE 14.—Annual Rate of Mortality, in the 41 Years 1840–1880, in Five Groups of Metropolitan Districts.

	LONDON.	WEST DISTRICTS.	NORTH DISTRICTS.	CENTRAL DISTRICTS.	EAST DISTRICTS.	SOUTH DISTRICTS.
Area in Square Miles	122'0	16'8	21'0	3'5	9'3	71'4
Decennial Increase of Po- } pulation per Cent., 1861–71	16'1	22'5	21'6	{ -12'8 (decrease). }	11'9	25'2
Enumerated Population, } 1871	3,254,260	561,359	751,729	334,369	639,111	967,692
Density: Persons } 1841 to an Acre . . . } 1871	25 42	27 52	28 56	172 150	66 107	11 21
MEAN RATE OF MORTALITY PER 1000 IN 41 YEARS.						
YEARS. 1840–1880	24'0	22'3	22'7	25'2	25'8	24'2
MEANS OF 10 YEARS.						
1841–50	24'8	23'0	22'7	24'7	26'2	26'2
1851–60	23'7	22'6	22'2	24'4	25'1	24'4
1861–70	24'4	22'7	23'6	26'7	26'9	23'4
1871–80	22'8	20'8	22'1	24'8	24'9	22'6
MEANS OF 5 YEARS.						
1841–5	24'2	22'9	22'5	24'5	25'3	24'5
1846–50	25'4	23'1	22'8	25'0	27'1	29'8
1851–5	24'8	23'5	22'7	25'1	25'9	26'3
1856–60	22'7	21'7	21'7	23'7	24'4	22'4
1861–5	24'4	22'9	23'6	27'3	26'4	23'5
1866–70	24'3	22'5	23'7	26'2	27'4	23'3
1871–5	23'0	21'1	22'4	25'1	25'2	22'5
1876–80	22'6	20'5	21'7	24'5	24'7	22'7
ANNUAL RATE OF MORTALITY PER 1000.						
1840	25'0	24'1	23'9	24'5	25'7	25'9
1841	24'1	22'4	22'4	25'0	25'1	24'4
1842	23'6	22'6	22'6	25'6	24'4	23'9
1843	24'8	23'3	23'1	25'3	26'4	24'8
1844	25'1	23'9	23'3	24'4	25'9	25'6
1845	23'3	22'5	21'0	24'0	24'6	23'8
1846	23'4	21'6	21'9	22'9	24'1	24'6
1847	26'8	24'5	25'4	27'9	29'4	27'7
1848	25'7	23'6	23'4	25'3	28'7	27'2
1849	30'1	26'1	23'7	27'9	31'8	37'6
1850	21'0	19'6	19'8	21'1	21'7	21'9
1851	23'4	22'0	22'2	24'1	24'3	24'0
1852	22'5	21'5	21'2	23'9	23'3	23'0
1853	24'4	22'3	22'4	25'1	26'5	25'3
1854	29'4	28'5	24'4	27'4	30'0	34'8
1855	24'3	23'0	23'3	25'1	25'5	24'6
1856	22'0	21'5	21'1	23'0	23'3	21'8
1857	22'4	21'2	21'5	23'8	24'6	21'5
1858	23'9	22'4	22'9	24'5	25'8	24'0
1859	22'7	21'4	21'7	24'1	24'0	22'6
1860	22'4	22'2	21'2	23'3	24'1	22'1
1861	23'2	22'1	22'3	25'4	24'0	22'8
1862	23'6	22'0	22'0	26'3	26'0	22'7
1863	24'5	23'0	23'8	27'1	26'5	23'3
1864	26'4	24'6	25'4	30'0	29'0	25'4
1865	24'5	22'7	24'5	27'5	26'4	23'2
1866	26'5	22'6	25'3	27'5	34'0	24'1
1867	23'0	21'8	23'1	25'1	24'2	22'0
1868	23'5	22'3	22'9	25'6	25'6	22'9
1869	24'6	22'2	23'5	26'8	28'0	23'9
1870	24'1	23'8	23'6	26'1	25'1	23'5
1871	24'6	22'4	25'6	25'0	26'1	24'0
1872	21'5	19'6	21'2	23'6	23'6	20'9
1873	22'5	20'5	21'2	25'1	25'2	22'1
1874	22'6	20'9	21'8	25'6	25'4	21'4
1875	23'8	22'2	22'3	26'1	25'6	24'0
1876	22'2	21'0	21'4	24'1	24'0	22'1
1877	21'9	19'2	21'8	24'1	24'5	21'4
1878	23'5	21'6	22'3	25'0	25'0	24'2
1879	23'1	21'0	21'9	25'9	25'5	23'2
1880	22'2	19'9	21'2	23'2	24'3	22'8
Average Number living } to One Annual Death } in 41 years	42	45	44	40	39	41

NOTE.—The populations upon which these rates of mortality have been calculated are deduced from the numbers enumerated at the four Censuses of 1841, 1851, 1861, and 1871. The deaths used for the 40 years 1840–79 are for the complete years, while those for 1880 are the numbers registered in the 52 weeks ending 1st January 1881.

Hampstead and Lewisham did not form part of Registration London prior to 1847. Wandsworth was not included in Registration London until the commencement of 1840, but the facts for that district have been included in calculating the rates in the above Table for the years 1840–43.

Certain alterations affecting the West and Central groups of districts were made in the year 1868, but no corrections have been made in the results given in this Table for any year prior to 1861.

TABLE 15.—Deaths REGISTERED in London at several groups of Ages and from different Causes during the 52 Weeks ending Saturday 1st January 1881.

CAUSES OF DEATH.	Annual Average for 53 Weeks, 1870-79.*	During the 52 Weeks ending 1st January 1881.							
		DEATHS of Persons of the Ages							80 Years and upwds.
		ALL AGES.	Under 20.			20 and under 40	40 and under 60.	60 and under 80.	
Mean Temperature - - -	49°1	Mean Temp. °	0-1.	1-5.	5-20.				
ALL CAUSES - - -	83920·7	81,128	20,907	14,994	5567	9850	12,881	14,022	2927
SPECIFIED CAUSES - - -	83675·8	81,022	20,844	14,987	5563	9826	12,870	14,008	2924
I. ZYMOTIC DISEASES.									
ORDER 1.									
1. Small-pox - - - - -	1708·0	104	1	9	20	53	16	-	-
2. Measles - - - - -	1911·0	229	28	51	87	45	17	1	-
3. Scarlet Fever - - - -	2674·1	142	29	80	94	34	20	5	-
4. Diphtheria - - - - -	418·5	1501	332	1050	119	7	-	-	-
5. Quinsy - - - - -	44·7	3073	185	1820	995	63	10	8	-
6. Croup - - - - -	665·2	541	43	283	179	20	8	3	-
7. Whooping-cough - - -	2904·3	54	8	24	13	5	6	3	-
8. Typhus - - - - -	246·1	670	68	434	68	-	-	-	-
9. Enteric or Typhoid Fever -	945·0	3438	1216	2084	136	2	-	-	-
10. Simple Continued Fever -	344·8	246·1	72	13	15	13	3	-	-
11. Erysipelas - - - - -	422·9	689	10	81	23	91	24	9	-
12. Puerperal Fever (Metria) -	274·9	125	5	37	32	15	16	18	2
13. Carbuncle - - - - -	35·9	840	104	17	9	40	69	83	18
14. Influenza - - - - -	20·8	268	-	10	241	17	-	-	-
15. Dysentery - - - - -	82·2	22	-	-	2	6	13	1	-
16. Diarrhoea - - - - -	3506·5	11	4	3	-	2	2	-	-
17. Simple Cholera - - - -	161·5	56	9	6	3	7	13	2	-
18. Ague - - - - -	17·0	3767	2667	763	33	25	55	171	53
19. Remittent Fever - - - -	12·6	134	65	28	4	9	18	10	-
20. Rheumatism - - - - -	498·6	10	-	-	1	6	1	2	-
21. Other Zymotic Diseases -	30·1	467	1	8	120	129	101	98	10
22. - - - - -	-	43	16	17	4	1	2	8	-
ORDER 2.									
1. Syphilis - - - - -	487·0	465	360	43	4	35	20	3	-
2. Stricture of Urethra - - -	72·5	72	-	-	3	15	23	25	1
3. Hydrophobia - - - - -	4·9	3	-	-	1	1	1	-	-
4. Glanders - - - - -	2·9	3	-	-	1	2	-	-	-
ORDER 3.									
1. Privation - - - - -	24·4	8	-	-	-	-	4	4	-
2. Want of Breast-milk - - -	560·1	509	490	19	-	-	-	-	-
3. Purpura and Scurvy - - -	144·7	173	46	85	12	12	8	7	3
4. Alcoholism - - - - -	53·0	111	-	-	-	33	19	1	-
5. Delirium Tremens - - -	100·0	-	-	-	1	36	50	24	-
6. Intemperance - - - - -	-	-	-	-	-	-	-	-	-
ORDER 4.									
1. Thrush - - - - -	177·5	185	182	1	-	-	1	-	1
2. Worms, &c. - - - - -	17·8	32	3	1	3	16	7	2	-
II. CONSTITUTIONAL DISEASES.									
ORDER 1.									
1. Gout - - - - -	150·1	189	-	-	-	9	72	105	3
2. Dropsy - - - - -	307·7	372	67	37	31	34	74	106	23
3. Cancer - - - - -	2329·7	2239	7	7	28	238	1085	821	48
4. Cancrum Oris (Noma) - - -	19·3	15	2	12	1	-	-	-	-
5. Mortification - - - - -	195·7	159	3	2	-	1	16	98	39
ORDER 2.									
1. Scrofula - - - - -	618·6	734	270	283	110	29	27	14	1
2. Tabes Mesenterica - - - -	1425·0	1630	922	611	84	8	2	3	-
3. Phthisis - - - - -	9187·9	8029	149	182	808	3381	2476	431	2
4. Hydrocephalus - - - - -	1565·2	1629	631	778	195	22	2	1	-
III. LOCAL DISEASES.									
ORDER 1.									
1. Cephalitis - - - - -	1138·0	1383	457	554	203	82	60	25	2
2. Apoplexy - - - - -	2330·9	2250	112	100	47	199	681	959	152
3. Paralysis - - - - -	1654·8	1524	4	14	13	103	341	911	138
4. Insanity - - - - -	125·4	96	-	-	1	20	34	88	3
5. Chorea - - - - -	11·4	336	2	-	1	3	-	-	-
6. Epilepsy - - - - -	387·5	334	6	17	3	97	87	85	9
7. Convulsions - - - - -	2717·1	2445	1892	510	35	3	2	1	-
8. Brain Disease, &c. - - -	1078·8	1126	52	84	84	140	283	430	53
ORDER 2.									
1. Pericarditis - - - - -	145·2	138	-	5	43	38	84	16	2
2. Aneurism - - - - -	177·2	192	-	-	2	60	107	20	3
3. Heart Disease, &c. - - -	4220·2	4218	22	24	269	694	1410	1632	167
ORDER 3.									
1. Laryngitis - - - - -	488·2	469	151	204	37	38	24	13	2
2. Bronchitis - - - - -	10554·4	11138	2611	1996	160	427	1844	3524	574
3. Pleurisy - - - - -	241·5	241	9	94	32	69	72	84	1
4. Pneumonia - - - - -	4497·3	4173	992	1283	263	538	630	415	46
5. Asthma - - - - -	568·0	435	-	2	5	27	167	215	19
6. Lung Disease, &c. - - -	930·6	937	332	164	31	97	119	159	35

* These averages have been raised nearly 7 per cent., to allow for increase of population between the middle of the period 1869-78, and the middle of 1880, and also for comparison with the deaths recorded in the 52 weeks of 1880.

TABLE 15 (continued).—Deaths REGISTERED in **London** at several groups of **Ages** from different **Causes** during the 52 Weeks ending Saturday 1st January 1881.

CAUSES OF DEATH.		Annual Average 1870-79.*	During the 52 Weeks ending 1st January 1881.							
			DEATHS of Persons of the Ages							
			ALL AGES.	Under 20.			20 and under 40.	40 and under 60.	60 and under 80.	80 Years and upwds.
				0-1.	1-5.	5-20.				
Mean Temperature - - - -		o 49.1	Mean Temp. o							
ORDER 4.										
1. Gastritis - - - - -	116.7	127	21	12	2	17	36	33	6	
2. Enteritis - - - - -	352.5	429	215	64	32	36	34	42	6	
3. Peritonitis - - - - -	322.4	290	21	12	60	81	67	43	6	
4. Ascites - - - - -	113.1	86	3	7	5	6	38	27	-	
5. Ulceration of Intestines - - - - -	160.5	127	8	12	16	28	40	22	1	
6. Hernia - - - - -	194.0	184	11	1	3	10	60	89	10	
7. Ileus - - - - -	207.8	245	22	17	11	27	44	98	6	
8. Intussusception - - - - -	68.2	64	35	5	8	15	6	14	1	
9. Stricture of Intestines - - - - -	56.8	55	-	1	-	13	13	25	3	
10. Fistula - - - - -	27.8	21	-	-	3	9	3	6	-	
11. Stomach Disease, &c. - - - - -	401.1	431	121	32	22	40	93	107	16	
12. Pancreas Disease, &c. - - - - -	6	2	-	-	-	-	-	2	-	
13. Hepatitis - - - - -	205.1	156	5	2	7	26	63	49	4	
14. Jaundice - - - - -	239.8	246	109	8	5	19	40	54	11	
15. Liver Disease, &c. - - - - -	1105.9	1111	20	3	27	170	566	310	15	
16. Spleen Disease, &c. - - - - -	18.8	22	1	-	4	8	6	3	-	
ORDER 5.										
1. Nephritis - - - - -	166.8	242	3	35	51	56	52	44	1	
2. Ischuria - - - - -	15.3	16	1	1	1	5	3	4	1	
3. Bright's Disease (Nephria) - - - - -	709.6	726	1	15	40	141	312	204	13	
4. Diabetes - - - - -	136.0	155	-	1	11	54	44	42	3	
5. Calculus (Stone) - - - - -	49.2	47	-	4	-	7	11	20	5	
6. Cystitis - - - - -	79.7	96	-	-	4	5	21	55	11	
7. Kidney Disease, &c. - - - - -	485.3	473	4	12	31	90	139	172	25	
ORDER 6.										
1. Ovarian Dropsy - - - - -	36.5	62	-	-	-	17	30	14	1	
2. Uterus Disease, &c. - - - - -	247.1	157	3	2	4	52	69	26	1	
ORDER 7.										
1. Synovitis (Arthritis) - - - - -	22.5	25	1	3	11	4	2	4	-	
2. Joint Disease, &c. - - - - -	353.7	357	8	46	154	66	43	35	-	
ORDER 8.										
1. Phlegmon - - - - -	173.8	201	30	18	27	50	38	38	-	
2. Ulcer - - - - -	65.4	51	5	1	1	2	12	26	4	
3. Skin Disease, &c. - - - - -	79.1	95	56	12	2	1	8	13	3	
IV. DEVELOPMENTAL DISEASES.										
ORDER 1.										
1. Premature Birth - - - - -	1317.6	1565	1565	-	-	-	-	-	-	
2. Cyanosis - - - - -	143.4	166	141	11	12	2	-	-	-	
3. Spina Bifida - - - - -	67.5	83	81	2	-	-	-	-	-	
4. Other Malformations - - - - -	104.1	139	95	3	-	-	-	-	-	
5. Teething - - - - -	772.9	660	348	312	-	-	-	-	-	
ORDER 2.										
1. Paramenia - - - - -	10.8	10	-	-	3	5	2	-	-	
2. Childbirth (see Puerperal Fever) - - - - -	320.5	253	-	-	7	204	42	-	-	
ORDER 3.										
1. Old Age - - - - -	2713.5	2495	-	-	-	-	-	1175	1320	
ORDER 4.										
1. Atrophy and Debility - - - - -	3562.4	3206	2667	259	15	10	55	290	-	
V. VIOLENT DEATHS, &c.										
ORDER 1.										
(ACCIDENT OR NEGLIGENCE.)										
1. Fractures and Contusions - - - - -	1023.2	897	24	75	132	200	243	108	25	
2. Gunshot Wounds - - - - -	38.6	7	-	-	4	3	-	-	-	
3. Cut, Stab - - - - -	21	2	1	6	7	5	-	-	-	
4. Burns and Scalds - - - - -	284.8	238	16	136	27	10	20	24	5	
5. Poison - - - - -	60.6	58	2	4	11	22	10	9	-	
6. Drowning - - - - -	407.3	326	9	10	99	111	78	19	-	
7. Suffocation - - - - -	567.5	605	542	19	10	6	21	6	1	
8. Otherwise - - - - -	189.5	128	32	9	23	17	31	14	2	
ORDER 3.†										
(HOMICIDE.)										
Murder and Manslaughter - - - - -	103.6	89	55	6	4	12	9	3	-	
ORDER 4.										
(SUICIDE.)										
1. Gunshot Wounds - - - - -	21.1	25	-	-	-	11	13	1	-	
2. Cut, Stab - - - - -	70.6	69	-	-	-	20	32	16	1	
3. Poison - - - - -	53.3	74	-	-	2	25	42	5	-	
4. Drowning - - - - -	63.5	67	-	-	8	25	24	10	-	
5. Hanging - - - - -	77.6	85	-	-	6	11	46	21	1	
6. Otherwise - - - - -	27.4	32	-	-	1	13	8	10	-	
ORDER 5.										
(EXECUTION.)										
1. Hanging - - - - -	2.5	4	-	-	-	3	1	-	-	
Sudden Deaths (Cause unascertained) - - - - -	36.8	30	11	2	2	1	4	8	2	
Causes not specified or ill-defined - - - - -	218.1	76	52	6	2	3	7	6	1	

NOTE.—Where a person is "found drowned" the coroners, as in some other cases, do not always succeed in discovering whether the death be due to suicide, murder, or accident. All such cases are classed under "accident or negligence."

* See note on preceding page.

† Order 2., comprising Violent Deaths IN BATTLE, is omitted as inapplicable to the civil population.

Deaths from different Causes.

TABLE 16.—Causes of Deaths REGISTERED in London in each of the 10 Years 1870-1879
Average 1870-1879; and Deaths REGISTERED in 1880 and in each Quarter of 1880.

Class.	MEAN TEMPERATURE -	48°-7	48°-7	50°-7	48°-9	49°-4	49°-4	50°-1	49°-7	49°-6	46°-2	49°-1	49°-5	1880.			
												Annual Average 1870-79*	1880	QUARTER ENDING			
		YEARS - - - -	1870	1871	1872	1873	1874	1875	1876	1877	1878			1879	Apr. 3	July 3	Oct. 3
	CAUSES OF DEATH.	364 Days.	364 Days.	364 Days.	371 Days.	364 Days.	364 Days.	364 Days.	364 Days.	364 Days.	371 Days.	364 Days.	364 Days.	91 Days.	91 Days.	91 Days.	91 Days.
	ALL CAUSES - -	77278	80332	70893	70634	76006	81513	77411	77002	83695	85540	83830.7	81128	24884	17706	19426	19112
	SPECIFIED CAUSES -	76831	80009	70639	76355	76347	81270	77221	76851	83559	85432	83675.8	81022	24855	17684	19404	19079
	(CLASSES.)																
I.	ZYMOTIC DISEASES	20034	22878	16236	15203	15433	17559	16285	13780	18220	15587	18472.5	17280	4606	3404	5772	3498
II.	CONSTITUTIONAL „	14437	14022	13891	14378	14338	15216	14916	14818	15509	15452	15676.4	14986	3966	3556	3846	3618
III.	LOCAL „	31270	32071	29921	35343	35255	37220	34892	35512	37325	42494	37523.1	37404	13181	8075	6947	9201
IV.	DEVELOPMENTAL „	8514	8444	7983	8588	8531	9423	8243	8063	8695	9016	9012.7	8627	2388	1960	2215	2064
V.	VIOLENT DEATHS -	2576	2594	2608	2843	2770	2852	2885	2872	3310	2933	2991.1	2725	714	689	624	698
	(ORDERS.)																
I.	1. MIASMATIC DISEASES -	18611	21518	14750	13683	13893	15842	14681	14146	15567	13967	16815.7	15666	4186	3070	5278	3132
	2. ENTHETIC „ -	517	417	510	503	504	549	534	519	533	545	547.3	543	155	123	138	127
	3. DIETIC „ -	726	778	819	832	868	969	879	936	922	842	914.2	854	213	183	264	194
	4. PARASITIC „ -	180	165	157	185	188	199	191	185	198	183	195.3	217	52	28	92	45
II.	1. DIATHETIC „ -	2665	2506	2531	2666	2851	2741	2721	2636	2797	2876	2878.7	2964	722	726	731	785
	2. TUBERCULAR „ -	11772	11516	11360	11712	11487	12475	12195	12182	12712	12576	12797.7	12022	3244	2830	3115	2833
III.	1. DISEASES OF NERVOUS SYSTEM - -	8647	8454	7855	8413	8831	9195	8951	9037	9454	9682	9441.4	9164	2594	2225	2222	2123
	2. „ OF ORGANS OF CIRCULATION -	3649	3953	3802	4227	4297	4418	4217	4451	4705	4871	4542.6	4548	1280	1045	1000	1223
	3. „ OF RESPIRATORY ORGANS - -	13906	14500	12985	16912	16112	17492	15615	15777	17430	21751	17330.0	17393	7761	3254	2128	4250
	4. „ OF DIGESTIVE ORGANS - -	3033	3047	3131	3416	3464	3495	3552	3545	3524	3443	3589.1	3596	866	885	977	868
	5. „ OF URINARY OR- GANS - -	1294	1310	1331	1472	1595	1639	1604	1666	1718	1765	1641.9	1755	444	432	403	476
	6. „ OF ORGANS OF GENERATION -	235	230	259	278	284	283	260	290	276	264	283.6	219	52	51	58	58
	7. „ OF ORGANS OF LOCOMOTION -	274	347	335	337	320	373	352	399	386	404	376.2	382	95	109	92	86
	8. „ OF INTEGUMEN- TARY SYSTEM -	232	230	223	238	352	325	341	347	332	314	318.3	347	89	74	67	117
IV.	1. DEV. DIS. OF CHILDREN	2099	2205	2037	2100	2174	2343	2316	2325	2458	2476	2405.5	2573	725	656	630	582
	2. „ OF ADULTS -	316	325	260	331	349	338	364	296	268	259	331.3	263	67	69	68	59
	3. „ OF OLD PEOPLE	2743	2643	2295	2661	2479	2462	2399	2379	2514	2868	2713.5	2495	780	560	525	630
	4. DISEASES OF NUTRITION	3356	3271	3371	3496	3529	3280	3164	3063	3455	3415	3562.4	3296	816	695	992	793
V.	1. ACCIDENT OR NEGLI- GENCE - - -	2195	2185	2214	2432	2415	2482	2484	2317	2916	2470	2571.5	2280	618	557	499	606
	3. HOMICIDE - - -	106	109	125	124	97	70	96	78	78	88	103.6	89	20	24	22	23
	4. SUICIDE - - -	273	300	268	287	255	298	298	273	315	372	313.5	352	74	108	103	67
	5. EXECUTION - - -	2	..	1	..	3	2	7	4	1	3	2.5	4	2	..	-	2
	SUDDEN DEATHS, CAUSE UN- ASCERTAINED - - - -	79	40	24	33	36	48	19	21	13	22	36.8	30	7	12	5	6
	CAUSES NOT SPECIFIED - -	368	283	230	241	223	195	171	130	118	86	218.1	76	22	10	17	27

* See note to Table 15, p. xxiv.

† Order 2, comprising Violent Deaths IN BATTLE, is omitted as inapplicable to the civil population.

TABLE 16 (cont).—Causes of Deaths REGISTERED in London in each of the 10 Years 1870-1879; Averages 1870-1879; and Deaths REGISTERED in 1880 and in each Quarter of 1880.

		MEAN TEMPERATURE										1880.						
		48°·7	48°·7	50°·7	48°·9	49°·4	49°·4	50°·1	49°·7	49°·6	46°·2	49°·1	49°·5	QUARTER ENDING				
Class.	YEARS	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	Annual Average 1870-79.*	1880	Apr. 3	July 3	Oct. 2	Jan. 1 1881	
	CAUSES OF DEATH.	Days.	Days.	Days.	Days.	Days.	Days.	Days.	Days.	Days.	Days.	Days.	Days.	Days.	Days.	Days.	Days.	
I.	ORDER 1.																	
	1. Small-pox	958	7876	1781	115	56	75	735	2544	1416	458	1708·0	475	122	144	49	160	
	2. Measles	1443	1431	1680	2195	1655	1427	1741	2347	1510	2488	1911·0	1501	340	357	294	510	
	3. Scarlet Fever (Scarlatina)	5998	1896	904	652	2662	3651	2297	1576	1792	2706	2574·1	3073	785	682	720	886	
	4. Diphtheria	313	313	255	306	365	546	359	317	558	592	418·5	541	131	125	131	154	
	5. Quinsy	24	29	20	44	63	62	42	40	42	44	44·7	54	11	13	14	16	
	6. Croup	592	528	616	719	751	722	693	529	600	577	665·2	570	154	139	110	167	
	7. Whooping-cough	1935	2299	3249	2680	1861	3232	2739	1780	4446	3000	2904·3	3438	1956	901	346	235	
	8. Typhus Fever	468	398	175	284	312	128	163	159	150	70	246·1	72	24	17	17	14	
	9. Enteric or Typhoid Fever	976	885	824	921	883	842	781	886	1010	801	940·0	859	164	147	184	194	
	Simple continued Fever	609	463	341	344	359	312	232	204	201	168	344·8	125	30	28	39	23	
	9. Erysipelas	447	494	386	424	558	433	379	322	278	244	422·9	340	74	72	78	116	
	10. Puerperal Fever (Metria)	217	182	251	306	456	304	255	217	195	194	274·9	268	75	53	56	84	
	11. Carbuncle	25	28	38	38	36	38	40	35	28	31	35·9	22	10	5	3	4	
	12. Influenza	30	35	21	16	16	21	23	15	9	9	20·8	11	5	1	3	2	
	13. Dysentery	87	85	79	83	72	78	71	93	70	53	82·2	56	14	7	20	15	
	14. Diarrhoea	3776	3894	3490	3879	3077	3198	3518	2479	3651	1913	3506·5	3767	133	255	2981	378	
	15. Cholera	235	221	175	164	122	107	131	88	123	54	151·5	134	2	11	114	7	
	16. Ague	14	19	12	17	26	18	12	13	8	20	17·0	10	2	3	1	4	
	17. Remittent Fever	10	9	18	15	15	8	11	11	14	10	12·6	10	3	..	4	3	
18. Rheumatism	429	408	408	453	526	614	509	451	432	445	498·6	467	121	102	104	140		
19. Other Zymotic Diseases	25	25	18	19	22	26	43	40	34	30	30·1	43	10	8	10	15		
	ORDER 2.																	
	1. Syphilis	463	356	435	436	423	471	436	439	461	458	467·0	465	128	106	121	110	
	2. Stricture of Urethra	51	59	72	63	70	72	89	61	63	80	72·5	72	2	15	16	15	
	3. Hydrophobia	..	1	..	1	9	6	6	16	5	2	4·9	3	..	1	..	2	
	4. Glanders	3	1	3	3	2	..	3	3	4	5	2·9	3	1	1	1	..	
	ORDER 3.																	
	1. Privation	27	20	14	20	15	32	27	28	30	16	24·4	8	2	2	2	2	
	2. Want of Breast Milk	479	455	525	539	592	610	519	558	520	453	560·1	509	130	90	181	108	
	3. Purpura and Scurvy	104	152	118	120	110	121	188	166	170	158	144·7	173	40	51	42	40	
	4. Alco- } a Del. Tremens holism } b Intemperance	70	89	86	79	71	97	84	70	70	81	85·0	53	14	10	20	9	
		46	62	76	74	80	109	111	114	132	134	100·0	111	27	30	19	35	
	ORDER 4.																	
	1. Thrush	173	146	137	168	171	185	179	167	172	166	177·5	185	42	23	86	54	
	2. Worms, &c.	7	19	20	17	17	14	12	18	26	17	17·8	32	10	5	6	11	
	II.	ORDER 1.																
		1. Gout	100	123	126	121	143	140	144	179	135	187	150·1	189	47	51	44	47
		2. Dropsy	656	566	516	542	574	448	429	307	364	298	507·7	372	130	90	78	95
		3. Cancer	1677	1811	1712	1793	1929	1951	1973	1910	2086	2165	2005·9	2229	522	544	565	598
		4. Cancerum Oris (Noma)	17	19	22	16	17	17	20	12	24	17	19·3	15	4	1	5	5
		5. Mortification	206	187	155	194	188	185	155	168	188	209	195·7	159	49	31	39	40
ORDER 2.																		
1. Scrofula		429	473	464	576	583	654	590	654	687	690	618·6	734	196	190	189	159	
2. Tabes Mesenterica		1131	1178	1180	1214	1195	1573	1456	1450	1515	1468	1425·0	1630	330	332	618	350	
3. Phthisis		8773	8473	8306	8544	8255	8797	8731	8519	8885	8800	9187·9	8029	2283	1864	1890	1983	
4. Hydrocephalus		1439	1392	1350	1378	1454	1451	1418	1559	1625	1618	1566·2	1629	435	444	409	341	
ORDER 3.																		
1. Cephalitis		910	855	928	931	959	1097	1123	1221	1285	1342	1136·0	1383	365	367	372	279	
2. Apoplexy		2066	2113	2014	2170	2262	2195	2165	2175	2341	2363	2230·9	2290	604	543	525	578	
3. Paralysis		1600	1490	1392	1602	1636	1617	1437	1448	1644	1649	1654·8	1524	441	356	337	370	
4. Insanity		110	114	115	118	159	131	116	8	106	121	125·4	96	27	18	29	32	
5. Chorea		15	12	10	11	4	13	10	8	11	13	11·4	6	1	3	..	2	
6. Epilepsy		344	285	335	367	372	418	387	371	358	396	387·5	334	785	87	80	82	
7. Convulsions		2742	2735	2263	2392	2538	2596	2609	2544	2568	2562	2717·1	2445	745	571	620	506	
8. Brain Disease, &c.		870	850	808	892	906	1129	1104	1184	1151	1216	1078·3	1126	326	289	239	281	
ORDER 2.																		
1. Pericarditis	122	133	134	136	165	147	113	138	134	127	150	145·2	138	28	37	31	42	
2. Aneurism	157	142	152	157	159	158	186	168	184	198	177·2	192	44	52	44	52		
3. Heart Disease, &c.	3370	3678	3516	3934	3973	4113	3918	4149	4394	4523	4220·2	4218	1208	956	925	1129		
ORDER 3.																		
1. Laryngitis	421	388	395	486	486	492	457	467	476	509	488·2	469	148	123	75	123		
2. Bronchitis	8234	8806	7542	10259	9583	10601	9231	9607	10879	14212	10554·4	11138	5451	1832	1209	2026		
3. Pleurisy	156	156	208	232	267	271	227	222	247	268	241·5	241	71	59	45	66		
4. Pneumonia	3762	3776	3681	4291	4298	4552	4210	4068	4398	5130	4497·3	4173	1541	947	616	1069		
5. Asthma	529	564	383	630	549	576	520	468	482	560	568·0	435	209	70	47	109		
6. Lung Disease, &c.	804	810	776	950	929	1000	960	945	948	1072	980·6	937	341	293	136	257		

NOTE.—Cases of "infantile fever" are classed with those of "enteric or typhoid fever;" "relapsing," and other continued fevers, under "simple continued fever;" "rheumatic fever" is classed with "rheumatism." As "stricture of the urethra" is almost invariably the result of gonorrhoea, it is classed among enthetic diseases.

cases. Cases of "hemorrhage" and "abscess" are classed with the diseases of the organs affected. In many cases of deaths from violence, it is not certified whether the injury was caused by accident or was the result of murder, manslaughter, or suicide; all such cases are classed in Order 1. for accident or negligence.

TABLE 16 (cont.)—Causes of Deaths REGISTERED in London in each of the 10 Years 1870-1879; Averages 1870-1879; and Deaths REGISTERED in 1880 and in each Quarter of 1880.

Class.	MEAN TEMPERATURE	48°·7	48°·7	50°·7	48°·9	49°·4	49°·4	50°·1	49°·7	49°·6	46°·2	49°·0	49°·4	1880.				
		YEARS	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	Annual Average 1870-79.*	1880	QUARTER ENDING			
															Apr. 3	July 3	Oct. 3	Jan. 0 1881
CAUSES OF DEATH.		364 Days.	364 Days.	364 Days.	371 Days.	364 Days.	364 Days.	364 Days.	364 Days.	364 Days.	371 Days.	364 Days.	364 Days.	91 Days	91 Days	91 Days	91 Days	
III. cont.	ORDER 4.																	
	1. Gastritis - - -	98	96	94	95	119	112	131	103	103	143	116·7	127	30	34	37	26	
	2. Enteritis - - -	278	290	270	351	340	379	341	349	370	337	352·5	429	80	88	179	82	
	3. Peritonitis - - -	278	278	289	356	365	296	298	307	275	281	322·4	290	74	73	77	66	
	4. Ascites - - -	128	125	124	112	121	80	105	104	81	70	113·1	86	21	17	22	25	
	5. Ulceration of Intestines - - -	173	169	151	174	147	147	139	117	162	126	160·5	127	27	31	35	34	
	6. Hernia - - -	176	171	172	175	199	210	177	191	177	171	194·0	184	58	46	41	49	
	7. Ileus - - -	166	189	172	210	185	175	210	201	221	219	207·8	225	67	69	45	54	
	8. Intussusception - - -	50	56	61	50	73	61	67	69	65	69	66·2	84	18	22	20	24	
	9. Stricture of Intestines - - -	36	58	58	45	48	66	51	62	40	69	56·8	55	14	11	15	15	
	10. Fistula - - -	19	25	26	39	23	19	25	26	29	30	27·8	21	7	6	6	9	
	11. Stomach Disease, &c. - - -	356	313	334	371	361	354	374	444	412	441	401·1	431	111	94	117	109	
	12. Pancreas Disease, &c. - - -	1	1	1	1	1	1	1	1	1	1	1·6	2	2	2	2	2	
	13. Hepatitis - - -	178	164	169	202	203	231	225	175	183	193	205·1	156	41	32	42	41	
	14. Jaundice - - -	204	225	245	223	215	226	234	237	227	212	239·8	246	60	73	66	47	
	15. Liver Disease, &c. - - -	878	872	954	1001	1050	1107	1148	1143	1159	1056	1105·9	1111	262	283	281	285	
16. Spleen Disease, &c. - - -	14	16	11	11	14	21	27	17	20	25	18·8	22	4	6	4	8		
	ORDER 5.																	
	1. Nephritis - - -	124	114	91	111	165	164	177	196	192	230	166·8	242	51	60	63	68	
	2. Ischuria - - -	14	8	24	14	15	14	16	11	13	14	15·3	16	2	2	4	8	
	3. Bright's Dis. (Nephria) - - -	543	494	644	642	709	741	703	720	740	718	709·8	726	205	175	159	187	
	4. Diabetes - - -	104	110	105	180	124	115	129	157	140	161	136·0	155	34	49	27	45	
	5. Calculus (Stone) - - -	32	44	42	48	43	41	59	55	59	38	49·2	47	4	8	17	18	
	6. Cystitis - - -	95	87	60	72	72	80	71	69	99	101	79·7	96	17	29	26	24	
	7. Kidney Disease, &c. - - -	422	472	365	455	467	484	449	458	475	503	485·3	473	131	109	107	126	
	ORDER 6.																	
	1. Ovarian Dropsy - - -	24	24	20	32	20	20	28	58	60	56	36·5	62	14	16	13	19	
	2. Uterus Disease, &c. - - -	211	206	239	246	264	263	232	232	216	208	247·1	157	38	35	45	39	
	ORDER 7.																	
	1. Synovitis (Arthritis) - - -	19	20	15	19	20	27	20	28	17	26	22·5	25	8	9	9	2	
	2. Joint Disease, &c. - - -	255	327	320	318	300	346	332	371	369	378	333·7	357	90	100	83	84	
	ORDER 8.																	
	1. Phlegmon - - -	127	126	107	154	214	182	190	192	171	166	173·8	201	52	43	33	73	
2. Ulcer - - -	48	44	54	55	74	63	71	78	63	63	65·4	51	13	10	11	17		
3. Skin Disease, &c. - - -	57	60	62	79	64	80	80	77	98	85	79·1	95	24	21	23	27		
IV.	ORDER 1.																	
	1. Premature Birth - - -	1060	1155	1171	1158	1201	1255	1325	1281	1350	1398	1317·6	1665	414	367	392	392	
	2. Cyanosis - - -	103	100	127	126	127	139	142	172	145	163	143·4	166	44	47	38	37	
	3. Spina Bifida - - -	57	60	52	64	52	61	70	72	77	68	67·5	83	21	20	22	20	
	4. Other Malformations - - -	782	803	631	660	718	774	681	695	775	732	772·9	660	220	179	150	111	
	5. Teething - - -																	
	ORDER 2.																	
	1. Paramecia - - -	10	7	7	5	14	14	10	7	13	14	10·8	10	3	2	3	2	
	2. Childbirth (see Puerperal Fever) - - -	306	318	253	326	335	324	354	289	255	245	320·5	253	64	67	65	57	
	ORDER 3.																	
	1. Old Age - - -	2743	2643	2295	2661	2479	2462	2399	2379	2514	2866	2713·3	2495	780	560	525	630	
	ORDER 4.																	
	1. Atrophy and Debility - - -	3356	3271	3371	3496	3529	3280	3164	3063	3455	3415	3562·4	3296	816	695	992	793	
	V.	ORDER 1. (ACCIDENT OR NEGLIGENCE.)																
		1. Fractures and Contusions - - -	941	909	893	977	964	1004	1020	957	965	963	1023·2	897	224	219	210	244
		2. Gunshot Wounds - - -	44	38	2	4	2	2	3	5	7	8	11·2	7	1	1	1	4
3. Cut, Stab - - -		275	261	239	279	274	270	240	247	267	318	284·8	238	92	47	21	175	
4. Burns and Scalds - - -		52	45	43	45	58	46	76	67	69	67	60·6	58	18	13	15	12	
5. Poison - - -		279	300	339	363	324	375	343	316	899	311	407·3	326	64	93	115	54	
6. Drowning - - -		400	490	496	534	540	555	559	548	569	630	567·5	605	181	141	100	183	
7. Suffocation - - -		204	142	166	201	202	189	211	158	150	154	189·5	128	34	31	31	29	
8. Otherwise - - -																		
ORDER 3. (HOMICIDE.)																		
1. Murder and Manslaughter - - -		106	109	125	124	97	70	96	78	78	88	103·6	89	20	24	22	23	
ORDER 4. (SUICIDE.)																		
1. Gunshot Wounds - - -		16	21	17	17	21	11	17	20	30	28	21·1	25	3	10	8	4	
2. Cut, Stab - - -		62	72	64	72	58	77	66	55	59	77	70·6	69	21	22	14	12	
3. Poison - - -		51	52	44	41	28	44	57	49	64	70	53·3	74	13	20	23	18	
4. Drowning - - -		56	69	57	62	59	57	68	44	59	64	63·5	67	9	21	27	10	
5. Hanging - - -	57	63	64	76	64	81	67	81	74	100	77·6	85	19	25	23	15		
6. Otherwise - - -	31	23	22	19	25	28	23	24	29	33	27·4	32	9	7	8	8		
ORDER 5. (EXECUTION.)																		
1. Hanging - - -	2	..	1	..	3	2	7	4	1	3	2·5	4	2	2		
Sudden Deaths (cause unascertained) - - -		79	40	24	38	36	48	19	21	18	22	30·8	30	7	12	5	6	
Causes not specified or ill-defined - - -		368	283	230	241	223	195	171	130	118	86	218·1	76	22	10	17	27	

* See note to Table 15, p. xxiy.

TABLE 17.—Deaths REGISTERED in the **London Districts**, and the **Mean Temperature**, in each of the 11 Years 1870-1880.

DISTRICTS.	AREA in Acres.*	DENSITY, Persons to an Acre, 1871.	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	1880
Mean Temperature - - -	—	—	48°·7	48°·7	50°·7	48°·9	49°·4	49°·4	50°·1	49°·7	49°·6	46°·2	49°·4
LONDON -	78,080	42	77,634	80,430	71,355	75,459	76,813	81,964	77,671	77,449	84,188	83,805	81,123
1 KENSINGTON - - -	3441	63	4427	4286	3903	4371	4677	4808	4885	4473	5000	4973	4710
1a FULHAM - - - -	4200	16	1579	1446	1405	1479	1600	1875	1964	1771	2358	2219	2217
2 CHELSEA - - - -	861	83	1937	1877	1640	1686	1802	1923	1753	1746	1920	2108	2002
3 ST. GEO. HANOVER SQ. -	2051	76	3963	3923	3244	3339	3310	3759	3370	3163	3340	3315	3140
4 WESTMINSTER - - -	216	237	1232	1127	1002	1101	1004	1079	971	873	1098	979	974
5 MARYLEBONE - - -	1506	106	3945	3852	3704	3663	3884	3991	3627	3511	3654	3850	3475
6 HAMPSTEAD - - - -	2248	14	550	1636	687	541	563	652	693	901	873	626	577
7 PANCRAS - - - -	2672	83	5407	5453	4919	5206	5057	5434	5193	5122	5365	5483	5286
8 ISLINGTON - - - -	3107	69	5078	5048	4196	4456	4816	4833	4969	5111	5376	5456	5669
9 HACKNEY - - - -	3935	32	2476	3327	2314	2725	3009	3145	3107	3550	3696	3440	3514
10 ST. GILES - - - -	245	219	1421	1269	1198	1150	1213	1217	1111	1095	1101	1095	1114
11 STRAND - - - -	433	95	1283	1149	1041	1208	1081	1097	999	973	1073	1123	952
12 HOLBORN - - - -	816	200	4062	3878	3686	3918	3925	3963	3651	3653	3680	3739	3143
13 LONDON CITY - - -	731	104	2038	2018	1825	1814	1906	1885	1639	1583	1561	1591	1402
14 SHOREDITCH - - -	648	196	3210	3410	2959	3062	2989	3296	2825	2877	3133	3074	2921
15 BETHNAL GREEN - - -	755	159	2850	3029	2690	3066	3033	3114	2832	2904	2957	2949	2883
16 WHITECHAPEL - - -	405	190	2471	2469	2411	2424	2637	2483	2361	2511	2445	2443	2237
17 ST. GEO.-IN-THE-EAST -	244	197	1273	1392	1083	1259	1292	1191	1151	1224	1152	1409	1206
18 STEPNEY - - - -	569	101	1256	1266	1089	1272	1245	1344	1264	1299	1334	1402	1309
19 MILE END OLD TOWN -	679	137	1993	2229	1944	2110	2104	2137	2223	2199	2287	2484	2328
20 POPLAR - - - -	2648	44	2833	2042	3089	3259	3435	3430	3377	3474	3679	3672	3773
21 ST. SAVIOUR SOUTHWARK -	1170	150	4379	4672	3850	4298	4252	4689	4071	4336	4765	4728	4563
22 ST. OLAVE SOUTHWARK -	1725	71	3220	3519	3083	3495	3193	3825	3408	3275	3810	3712	3311
23 LAMBETH - - - -	4059	51	4615	5475	4713	5025	4851	5047	5197	5534	5801	5669	5712
24 WANDSWORTH - - -	11740	11	2674	2877	2426	2545	2796	3112	3163	3004	3308	3423	3596
25 CAMBERWELL - - -	4450	25	2377	2350	2340	2431	2487	3024	2757	2711	3357	3454	3532
26 GREENWICH - - - -	3800	26	2491	2241	2103	2311	2212	2539	2433	2333	2809	2841	2939
27 LEWISHAM - - - -	11436	5	894	817	825	818	899	965	973	920	1064	985	1057
28 WOOLWICH - - - -	7231	10	1085	1445	1391	1432	1476	1507	1699	1843	2132	1550	1586

NOTE. — The Deaths in this Table are compiled from the Abstracts which appear in the Registrar General's Annual Reports, excepting for the year 1880, for which the Deaths are derived from the Weekly Returns embracing 52 weeks.

* These areas have been supplied to the Registrar General by the Ordnance Survey Department, and include 2718 acres of tidal water, or river Thames. For area of the Greater London see Table 6.

TABLE 18. LONDON.—Births and Deaths; DEATHS of INFANTS under 1 Year of Age, and of PERSONS aged 60 Years and upwards from ALL CAUSES; and DEATHS from the principal ZYMOTIC DISEASES and from VIOLENCE, INQUEST CASES, and DEATHS in PUBLIC INSTITUTIONS, in GROUPS of DISTRICTS, and in each METROPOLITAN DISTRICT during the 52 Weeks ending Saturday, 1st January 1881.

REGISTRARS' SUB-DISTRICTS.	Enumerated Population, 1871.	Total Births in 52 Weeks.	Total Deaths in 52 Weeks.	The DEATHS registered in the 52 Weeks include															Inquest Cases.	Deaths in Public Institutions.
				Deaths of		Deaths from														
						Infants under 1 Year of Age.	Persons aged 60 Years and upwards.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus Fever.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.	Cholera.	Violence.		
LONDON - -	3,254,260	132173	81128	20907	16949	475	1501	3073	541	3438	72	689	125	3767	134	2725	5243	14607		
WEST DISTRICTS -	561,359	20018	13043	3201	2917	53	287	323	103	500	9	102	22	531	14	441	865	2320		
NORTH DISTRICTS -	751,729	30431	18521	4729	4285	185	197	643	199	913	8	163	24	817	29	531	1224	3453		
CENTRAL DISTRICTS -	334,369	9086	6611	1578	1200	4	102	170	75	289	3	60	17	258	4	305	568	1363		
EAST DISTRICTS - -	639,111	27365	16657	4412	3210	67	349	751	76	590	16	108	23	839	35	673	1366	3411		
SOUTH DISTRICTS -	967,692	45273	26296	6987	5337	166	566	1166	188	1146	36	256	39	1322	52	775	1220	4000		
WEST DISTRICTS.																				
1. KENSINGTON - - -	217112	7446	4710	1148	1086	3	120	123	40	144	4	44	8	193	4	149	320	712		
1a. FULHAM - - -	66041	4195	2217	652	432	49	73	37	5	128	3	7	3	135	4	84	167	215		
2. CHELSEA - - -	70738	3210	2002	538	449	1	33	69	30	90	-	12	4	74	2	44	124	338		
3. ST. GEO. HANOVER SQ.	156287	3902	3140	621	749	-	25	69	22	102	1	34	5	92	2	145	211	897		
4. WESTMINSTER - -	51181	1265	974	242	201	-	36	25	6	36	1	5	2	37	2	19	43	158		
NORTH DISTRICTS.																				
5. MARYLEBONE - - -	159254	5086	3475	819	872	2	51	93	18	151	1	15	3	118	3	85	216	802		
6. HAMPSTEAD - - -	32281	1090	577	146	156	-	6	11	2	27	-	8	-	15	-	22	41	68		
7. PANCRAS - - -	221465	8038	5286	1292	1235	2	165	180	52	299	1	42	7	222	1	208	475	1244		
8. ISLINGTON - - -	213778	9846	5669	1527	1276	35	49	246	33	296	5	56	8	290	10	113	315	796		
9. HACKNEY - - -	124951	6371	3514	945	746	146	26	163	14	140	1	42	6	172	15	103	177	543		
CENTRAL DISTRICTS.																				
10. ST. GILES - - -	53556	1492	1114	259	242	-	36	43	13	44	2	14	6	43	2	33	88	176		
11. STRAND - - -	41339	891	952	180	149	-	15	24	11	41	-	6	4	31	-	59	91	325		
12. HOLBORN - - -	163491	5645	3143	955	503	4	42	86	36	179	1	23	6	150	2	81	232	269		
13. LONDON CITY - -	75983	1058	1402	184	306	-	9	17	15	25	-	27	1	34	-	132	157	593		
EAST DISTRICTS.																				
14. SHOREDITCH - - -	127164	5117	2921	844	683	14	50	65	8	130	1	17	4	185	11	86	171	652		
15. BETHNAL GREEN - -	120104	5201	2883	850	512	20	36	116	8	143	3	26	4	164	13	88	203	472		
16. WHITECHAPEL - - -	76573	2658	2237	437	406	6	26	22	12	37	-	11	2	91	1	176	286	997		
17. ST. GEO. IN-THE-EAST	48052	1856	1206	302	254	4	19	27	4	68	1	9	2	51	1	47	83	307		
18. STEPNEY - - -	57690	2200	1809	375	171	6	59	104	9	70	5	4	2	60	3	56	114	66		
19. MILE END OLD TOWN	93152	4122	2328	614	548	11	54	107	17	59	5	22	4	98	3	51	142	274		
20. POPLAR - - -	116376	6211	3773	990	636	6	145	310	18	83	1	19	5	190	3	169	367	663		
SOUTH DISTRICTS.																				
21. ST.SAVIOUR SOUTHWARK	175049	7473	4533	1286	886	8	99	185	23	216	4	31	8	221	7	87	204	697		
22. ST. OLAVE SOUTHWARK	122398	5370	3311	741	567	8	59	163	24	132	10	37	3	187	4	178	237	779		
23. LAMBETH - - -	208342	9214	5712	1411	1240	55	143	309	48	275	4	59	14	243	12	186	269	1143		
24. WANDSWORTH - -	125060	7032	3596	1118	693	3	59	173	19	123	7	36	2	203	10	98	155	297		
25. CAMBERWELL - - -	111306	6647	3532	1037	734	12	60	126	33	208	1	36	7	213	6	65	123	345		
26. GREENWICH - - -	100500	4667	2939	700	615	80	41	185	26	85	8	36	2	130	4	86	127	530		
27. LEWISHAM - - -	51557	2106	1057	300	279	-	15	14	4	57	2	10	2	47	3	23	26	50		
28. WOOLWICH - - -	73880	2764	1686	394	323	-	90	31	11	50	-	11	1	78	6	52	74	219		

TABLE 18 (continued). LONDON.—TOTAL Births and Deaths; DEATHS of INFANTS under 1 Year of Age, and of PERSONS aged 60 Years and upwards from ALL CAUSES; and DEATHS from SMALL-POX, MEASLES, SCARLET FEVER, DIPHTHERIA, WHOOPING-COUGH, FEVER, DIARRHŒA, CHOLERA, and VIOLENCE; also DEATHS in PUBLIC INSTITUTIONS; registered in each SUB-DISTRICT during the 52 Weeks ending Saturday, 1st January 1881.

REGISTRARS' SUB-DISTRICTS.		Enumerated Population, 1871.	52 in Births Weeks.	52 in Deaths Weeks.	The DEATHS registered in the 52 Weeks include																	Inquest Cases.	Deaths in Public Institutions.*																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
					Deaths of		Deaths from																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
					Infants under 1 Year of Age.	Persons aged 60 Years and upwards.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus Fever.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.	Cholera.	Violence.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
WEST DISTRICTS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					

NOTE.—The letters placed against the names of the sub-districts denote Public Institutions situated therein, namely:—W—Workhouse; WH—Workhouse Establishment receiving inmates from other Districts than that in which it stands (see note at the foot of next page); H—Hospital; L—Lunatic Asylum.

* The deaths in Prisons and Military Asylums are not included in this column.

† The sub-district of Castle Baynard now includes the parishes which formerly constituted the sub-districts of Christchurch and Queenhithe. Christchurch was united to Castle Baynard on 1st January 1880, and Queenhithe on 1st October.

TABLE 18 (continued). LONDON.—TOTAL **Births** and **Deaths**; DEATHS of INFANTS under 1 Year of Age, and of PERSONS aged 60 Years and upwards from ALL CAUSES; and DEATHS from SMALL-POX, MEASLES, SCARLET FEVER, DIPHTHERIA, WHOOPING-COUGH, FEVER, DIARRHŒA, CHOLERA, and VIOLENCE; also DEATHS in PUBLIC INSTITUTIONS; registered in each SUB-DISTRICT during the 52 Weeks ending Saturday, 1st January 1881.

REGISTRARS' SUB-DISTRICTS.	Enumerated Population, 1871.	Total Births in 52 Weeks.	Total Deaths in 52 Weeks.	The DEATHS registered in the 52 Weeks include																Inquest Cases.	Deaths in Public Institutions.*
				Deaths of				Deaths from													
				Infants under 1 Year of Age.	Persons aged 60 Years and upwards.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus Fever.	Erysipelas (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.	Cholera.	Violence.					
EAST DISTRICTS.																					
Holywell (Shoreditch) - - -	12430	267	127	46	22	1	-	3	-	4	-	2	-	11	-	7	9	-	-	-	
St. Leonard (Shoreditch) <i>HL†</i> - -	16545	556	324	109	47	-	-	3	11	21	-	-	-	25	-	13	23	12	-	-	
Hoxton New Town <i>w</i> - - -	27835	1260	807	247	254	6	12	10	2	21	-	-	2	39	2	13	43	277	-	-	
Hoxton Old Town - - -	26983	1086	493	165	80	4	3	13	1	31	-	-	1	33	2	14	32	-	-	-	
Haggerston <i>WH</i> - - -	43421	1948	1170	297	280	3	12	23	4	53	1	9	-	72	6	29	59	343	-	-	
Hackney Road <i>H</i> - - -	26822	1218	630	216	84	2	7	27	2	45	-	12	-	41	6	20	50	18	-	-	
Green (Bethnal Green) <i>WHL†</i> - -	42433	1970	1278	305	310	3	10	26	2	44	-	4	2	56	1	41	88	464	-	-	
Church (Bethnal Green) - - -	26577	1202	580	192	73	10	16	45	3	38	3	5	-	39	2	14	36	-	-	-	
Town (Bethnal Green) - - -	21272	811	395	137	45	5	3	18	1	16	-	5	1	28	4	13	29	-	-	-	
Spitalfields <i>H</i> - - -	22469	729	395	127	56	-	3	4	2	12	-	1	2	23	-	19	46	14	-	-	
Mill End New Town <i>W</i> - - -	15550	724	580	105	168	5	3	6	2	6	-	1	-	23	-	10	67	354	-	-	
Whitechapel North - - -	11597	421	207	68	30	1	4	3	-	11	-	1	-	14	-	10	17	-	-	-	
Whitechapel Church <i>H</i> - - -	7322	269	757	50	103	-	8	3	3	7	3	6	-	-	-	123	141	629	-	-	
Goodman's Fields - - -	10381	354	183	68	31	-	6	3	1	3	-	1	-	20	1	6	12	-	-	-	
Aldgate - - -	9224	161	115	29	18	-	2	3	-	2	-	1	-	5	-	8	13	-	-	-	
St. Mary (St. Geo.-in-the-East) - -	17900	730	334	118	42	2	3	11	-	10	-	5	-	24	1	13	30	-	-	-	
St. Paul (St. Geo.-in-the-East) - -	21350	771	426	132	55	1	9	14	4	40	1	2	2	15	-	19	29	-	-	-	
St. John (St. Geo.-in-the-East) <i>W</i> -	8802	355	446	52	157	1	7	2	-	18	-	2	-	12	-	15	24	307	-	-	
Shadwell <i>H</i> - - -	11640	345	299	75	28	2	9	14	-	17	-	2	-	7	1	27	39	66	-	-	
Ratcliff - - -	16131	579	339	99	50	2	9	23	5	13	1	1	1	14	-	10	20	-	-	-	
Limehouse - - -	29919	1276	671	201	93	2	21	67	4	35	4	1	1	39	2	19	55	-	-	-	
Mill End Old Town Western - - -	38128	1510	715	221	117	5	13	28	6	22	1	9	2	34	-	12	35	-	-	-	
Mill End Old Town Eastn. <i>W</i> <i>W</i> <i>H</i> -	55024	2612	1613	393	431	6	41	79	11	37	4	13	2	64	3	39	107	274	-	-	
Row - - -	26055	1392	651	202	87	4	8	33	6	30	-	3	-	23	1	17	63	-	-	-	
Bromley <i>W</i> <i>W</i> <i>H</i> - - -	47170	2730	1919	451	383	1	84	138	8	23	1	9	3	109	2	79	146	611	-	-	
Poplar <i>W</i> <i>W</i> - - -	48611	2039	1203	337	196	1	53	189	4	25	-	7	2	48	-	73	158	52	-	-	
SOUTH DISTRICTS.																					
Christchurch Southwark <i>WH</i> - -	14573	491	386	87	120	1	5	19	-	10	-	1	-	8	-	12	23	84	-	-	
St. Saviour Southwark <i>H</i> - -	15677	531	322	91	43	5	6	13	-	-	-	1	-	16	-	18	28	-	-	-	
Kent Road - - -	20421	859	472	162	66	-	18	15	3	31	-	6	1	34	1	8	31	-	-	-	
Borough Road <i>WH</i> - - -	16695	670	421	137	45	1	10	24	5	22	1	4	-	26	-	8	47	87	-	-	
London Road <i>HL</i> - - -	18961	775	453	156	70	-	7	28	3	29	-	1	1	-	-	10	26	19	-	-	
Trinity Newington - - -	22632	1015	497	165	66	-	13	23	3	41	1	3	3	27	-	18	13	-	-	-	
St. Peter Walworth <i>W</i> - - -	48248	2419	1611	365	400	1	32	40	6	56	2	15	3	62	3	18	29	507	-	-	
St. Mary Newington - - -	16792	713	401	123	78	-	8	23	3	17	-	1	-	20	-	5	7	-	-	-	
St. Olave Southwark <i>H</i> - -	4873	85	527	24	66	-	2	4	6	1	2	11	-	8	-	101	105	468	-	-	
St. John Horsleydown <i>W</i> - -	10500	344	229	57	26	-	4	8	-	13	-	2	-	21	-	14	23	34	-	-	
Leather Market - - -	16737	594	372	130	85	1	5	16	-	30	-	2	-	38	1	8	13	-	-	-	
St. Mary Magdalen <i>W</i> - - -	15709	642	427	81	139	1	7	17	2	14	-	4	1	25	-	7	17	123	-	-	
St. James Bermondsey - - -	47933	2314	967	299	146	1	34	69	6	56	5	14	1	62	-	23	35	-	-	-	
Rotherhithe <i>W</i> - - -	27096	1391	759	150	155	5	7	49	5	24	3	5	5	1	33	3	30	44	149	-	-
Waterloo Road First <i>H</i> - -	14074	652	367	115	39	-	23	25	2	22	1	-	1	21	-	13	20	32	-	-	
Waterloo Road Second <i>H</i> - -	18465	851	546	107	43	-	9	13	-	9	-	2	2	19	1	8	13	9	-	-	
Lambeth Church First <i>H</i> - -	19492	742	794	152	105	-	3	11	9	23	-	10	2	22	-	92	105	409	-	-	
Lambeth Church Second <i>WW</i> - -	35833	1775	1291	260	378	-	33	52	10	57	-	10	2	60	-	19	42	604	-	-	
Kennington First - - -	41236	1512	870	237	224	-	41	22	2	63	-	9	6	28	7	24	30	-	-	-	
Kennington Second - - -	31221	1051	605	159	166	1	13	22	4	44	1	2	-	27	-	6	15	-	-	-	
Brixton <i>W</i> - - -	35435	2021	1164	282	223	54	20	140	11	38	2	22	1	55	-	19	30	182	7	-	
Norwood <i>W</i> - - -	12536	610	275	79	60	-	1	24	10	8	-	4	-	11	4	5	9	-	-	-	
Clapham <i>H</i> - - -	27347	1082	544	193	132	2	19	21	3	25	-	4	-	36	2	15	18	8	-	-	
Battersea <i>W</i> - - -	54016	4093	2040	734	298	1	30	93	5	66	7	18	-	131	8	56	81	194	-	-	
Vandsworth <i>HL</i> - - -	19783	810	484	111	106	-	9	24	4	15	-	6	1	20	-	10	32	100	-	-	
Putney - - -	9439	348	180	54	55	-	-	1	-	9	-	4	-	10	-	6	12	-	-	-	
Streatham - - -	14475	699	348	81	102	-	1	84	7	8	-	4	1	6	-	11	12	-	-	-	
Dulwich - - -	4041	82	50	11	13	-	-	1	2	2	1	-	1	-	2	-	4	6	-	-	
Camberwell <i>W</i> <i>L</i> <i>HL</i> - -	31254	1999	1167	999	327	-	1	23	26	11	75	-	8	3	71	1	14	33	341	-	-
Peckham <i>W</i> - - -	42180	2670	1348	407	252	9	27	68	12	47	-	12	2	75	2	27	48	4	-	-	
St. George (Camberwell) - - -	33851	1896	967	320	142	2	19	30	8	85	1	15	2	65	3	20	41	-	-	-	
St. Paul Deptford <i>w</i> - - -	53714	2780	1595	435	235	79	26	150	21	55	8	23	-	70	4	33	48	134	-	-	
St. Nicholas Deptford - - -	6474	314	162	55	25	-	3	3	3	9	-	1	-	9	-	9	12	-	-	-	
Greenwich West - - -	21034	749	405	97	115	-	3	15	-	14	-	3	1	23	-	16	25	-	-	-	
Greenwich East <i>WH</i> - - -	19378	824	777	113	240	1	9	17	2	7	-	9	1	23	-	28	42	396	-	-	
Eltham <i>H</i> - - -	4539	146	76	21	20	-	-	2	-	1	-	-	-	5	1	2	3	-	-	-	
Lee - - -	16440	513	283	62	90	-	3	7	1	11	11	2	2	10	2	2	3	-	-	-	
Lewisham Village <i>WH</i> - - -	11513	632	335	103	89	-	1	5	1	16	-	2	-	15	-	10	10	49	-	-	
Sydenham <i>H</i> - - -	19065	815	363	114	80	-	11	-	2	29	-	6	2	17	-	9	10	1	-	-	
Charlton <i>H</i> - - -	9504	261	179	32	34	-	5	2	1	6	-	1	-	7	-	12	13	45	-	-	
Woolwich Dockyard - - -	17226	560	359	94	69	-	36	9	-	16	-	2	1	25	1	12	20	-	-	-	
Woolwich Arsenal <i>WHH</i> - -	18331	741	413	116	64	-	32	8	1	10	-	3	-	16	-	14	18	10	-	-	
Plumstead West - - -	13027	487	214	45	45	-	-	3	1	8	-	3	-	6	-	2	4	-	-	-	
Plumstead East <i>W</i> - - -	15232	716	421	107	111	-	17	9	1	10	-	2	-	24	5	12	19	164	-	-	

The following WORKHOUSE Establishments receive inmates from other Districts than the one in which they stand, and are indicated in the above Table by *w*:-

Central London Sick Asylum in Tottenham-court sub-district.

Kentish Town sub-district.

London City Workhouse in Islington East sub-district.

Holborn Infirmary " "

TABLE 18A. LONDON—OUTER RING.—POPULATION, BIRTHS, DEATHS from ALL CAUSES and from SMALL-POX, MEASLES, SCARLET FEVER, DIPHTHERIA, WHOOPING-COUGH, FEVER, DIARRHŒA, VIOLENCE; also DEATHS in PUBLIC INSTITUTIONS; registered in each SUB-DISTRICT during the 52 Weeks ending Saturday, 1st January 1881.

District and Sub-district Numbers.	SUB-DISTRICTS.	Area in Acres, including Tidal Water and Fore-shore.	Enumerated Population, 1871.	BIRTHS.	DEATHS.	The DEATHS registered in the 52 Weeks include														
						Deaths of		Deaths from										Inquest Cases.	Deaths in Public Institutions.	Uncertified Causes of Death.
						Infants under 1 Year of Age.	Persons aged 60 Years & upwards.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Fever.	Diarrhoea.	Cholera.	Violence.				
	LONDON—OUTER RING	368,414	631,381	30,770	15,826	4279	3759	16	265	454	129	527	175	856	22	420	711	1663	363	
9:1	Carshalton <i>wL</i> - -	12228	13523	561	494	101	123	-	2	20	4	23	5	14	-	5	5	201	14	
2	Epsom (<i>part of</i>) * <i>WH</i>	9971	9145	277	163	33	66	-	-	-	2	2	6	10	-	5	8	45	4	
3:1	Godstone (<i>part of</i>) * -	2754	900	31	17	6	4	-	-	-	-	-	1	2	-	1	1	-	-	
7:1	Croydon <i>WwH</i> - -	20851	71319	3050	1526	404	405	2	33	49	24	38	19	70	6	38	62	197	16	
2	Mitcham <i>wH</i> - -	11697	12534	533	243	69	49	-	7	20	3	4	1	20	1	7	11	7	7	
8:1	Wimbledon <i>HHH</i> - -	3220	9087	496	189	58	42	-	3	3	-	6	5	11	-	7	9	4	6	
2	Kingston <i>WHH</i> - -	8549	27489	1132	620	159	155	-	11	5	12	27	3	21	-	13	30	97	14	
3	Esher (<i>part of</i>) * -	6601	7353	266	114	26	28	-	-	-	-	-	1	3	-	4	11	-	2	
4	Hampton <i>H</i> - -	4573	10185	354	193	46	53	-	-	3	1	5	4	16	-	7	8	2	-	
9:1	Richmond <i>WH</i> - -	2271	16329	601	418	84	125	-	1	11	1	32	9	8	-	18	21	54	3	
2	Mortlake - -	2961	9316	391	212	61	53	-	-	4	-	8	1	4	-	11	13	-	3	
9:1	Bromley (<i>part of</i>) * <i>HH</i>	15669	19509	920	387	104	97	-	17	7	5	13	4	31	-	9	14	2	13	
2	Chislehurst (<i>part of</i>) * <i>W</i>	13865	10023	474	264	61	71	-	1	4	7	7	11	17	-	6	8	43	3	
1:1	Bexley <i>H</i> - -	13439	19566	790	378	94	102	3	8	4	3	7	4	20	1	15	20	5	21	
3:1	Sunbury <i>w</i> - -	11055	9860	314	166	39	43	-	2	8	1	1	3	16	-	3	9	7	2	
2	Staines <i>W</i> - -	13277	10339	370	211	42	69	-	7	1	-	6	3	11	-	4	12	28	1	
1:1	Hillingdon <i>WH</i> - -	6029	9712	342	190	41	67	-	1	5	-	2	1	3	-	6	12	40	-	
2	Uxbridge - -	6178	5329	145	86	15	27	-	-	6	-	1	2	3	-	2	8	-	1	
3	Hayes <i>wHL</i> - -	14587	10497	327	255	45	73	-	3	2	-	9	1	15	-	10	21	102	2	
5:1	Isleworth <i>W</i> - -	7008	19980	748	497	105	132	-	5	13	4	9	6	11	-	16	33	95	-	
2	Twickenham - -	2477	10533	368	195	45	56	-	3	3	3	5	2	6	-	11	17	1	1	
3	Brentford <i>HL</i> - -	4370	20279	859	390	122	96	-	1	3	1	14	1	25	-	8	22	8	5	
4	Chiswick - -	1311	8508	574	237	96	57	-	9	5	-	10	1	17	-	4	17	-	-	
5	Acton <i>wH</i> - -	6087	12638	843	368	124	80	-	11	7	-	11	5	19	2	11	18	7	10	
1:1	Harrow <i>HH</i> - -	13809	10869	351	147	34	43	-	-	-	-	4	1	6	-	8	12	4	-	
2	Edgware <i>H</i> - -	6994	3450	102	64	16	12	-	-	6	-	1	-	-	-	1	5	3	-	
3	Willesden - -	4383	15869	959	481	162	53	1	20	24	2	21	3	34	1	4	19	2	-	
4	Hendon <i>W</i> - -	8382	6972	324	181	51	44	-	1	2	-	3	2	7	-	7	20	29	1	
1:1	South Mimms - -	15419	5924	195	84	27	26	-	1	-	-	1	1	7	1	-	-	-	1	
2	Barnet <i>W</i> - -	5423	7752	279	152	31	55	-	-	2	-	2	1	6	-	6	5	39	5	
3	Finchley <i>L</i> - -	4688	11493	429	376	52	90	-	4	4	2	3	-	12	-	7	16	184	1	
1:1	Hornsey <i>H</i> - -	3089	19357	1151	459	128	128	-	1	12	4	10	6	17	2	8	23	10	-	
2	Tottenham <i>H</i> - -	4642	22869	1630	717	242	147	1	20	7	10	13	11	44	-	34	53	28	44	
3	Edmonton <i>WwW</i> - -	7483	13860	784	539	122	211	1	8	4	1	21	15	26	-	6	12	237	13	
4	Enfield <i>WH</i> - -	12653	10054	659	281	85	73	1	-	5	5	4	2	25	1	9	10	2	12	
5	Waltham Abbey - -	11017	5197	183	81	25	20	-	-	-	-	4	-	7	-	1	-	-	7	
6	Cheshunt - -	8493	7518	219	138	38	48	-	1	-	-	8	2	9	1	6	9	-	-	
1:1	Hatfield (<i>part of</i>) * -	3180	559	16	5	2	1	-	-	-	-	-	-	2	-	-	-	-	-	
1:1	Bushey - -	9028	6472	197	105	22	34	-	1	1	-	7	-	2	-	7	8	-	-	
1:1	Stratford - -	882	23286	1641	825	262	125	1	34	28	5	70	9	50	-	14	25	-	14	
2	West Ham <i>wWwH</i> - -	7345	44642	3861	1755	581	191	2	26	112	15	72	14	124	4	57	69	13	107	
3	Leyton <i>Ww</i> - -	4274	15513	975	604	127	170	3	11	20	3	11	2	19	1	7	16	164	14	
4	Walthamstow <i>H</i> - -	6619	15701	988	481	128	95	1	8	21	8	19	1	34	1	4	5	1	-	
1:1	Chigwell (<i>part of</i>) * <i>H</i>	10483	8169	307	163	43	41	-	2	11	2	4	3	15	-	6	3	2	1	
1:1	Romford (<i>part of</i>) * -	6730	2879	138	59	17	12	-	-	4	-	1	-	3	-	-	1	-	2	
2	Ilford - -	8492	5947	242	139	40	31	-	1	5	-	2	3	17	-	3	6	-	-	
3	Barking Town - -	4123	6576	374	177	64	33	-	1	3	1	6	-	17	-	4	4	-	13	

The parts of sub-districts included within that portion of the Metropolitan Police District which forms the Outer Ring are as follow:—
 2, the whole of Epsom sub-district, except the parish of Ashstead (pop. 906); 3: 1, the two parishes of Warringham and Farley in Godstone sub-district; 3: 3, the whole of Esher sub-district, except the parish of Esher (pop. 1815); 40: 1, the whole of Bromley sub-district, except the parishes of Cudham and Knockholt (pop. 1744); 40: 2, the whole of the Chislehurst sub-district, except the parish of Chislefield (pop. 903); 1, only the parish of Northaw in Hatfield sub-district; 186: 1, the whole of the Chigwell sub-district, except the parish of Thoidon-Bois (p. 798); 183: 1, only the parish of Dagenham in Romford sub-district.

TABLE 19.—Temperature at Greenwich, Total Deaths, and Deaths at Seven groups of Ages in London, in each Week of the Year 1880.

POPULATION estimated to the middle of 1880 - -					3,664,149	109,974	365,888	1,088,144	1,222,737	649,567	213,709	14,130
Number of Week.	WEEK ENDING	TEMPERATURE.			AGES AT DEATH.							
		Mean.	Highest Reading by Day.	Lowest Reading by Night.	ALL AGES.	Under 1 Year of Age.	1-5	5-20	20-40	40-60	60-80	80 and upwards.
	YEAR (of 52 Weeks) }	°	°	°								
		49·4	87·5	17·2	81,123	20,907	14,994	5,567	9,830	12,881	14,022	2,927
	March Quarter	39·8	62·4	17·2	24,884	5,554	4,976	1,512	2,885	4,008	4,937	1,012
	June „	52·8	87·5	31·5	17,706	4,066	3,398	1,363	2,293	2,954	3,042	590
	September „	61·3	87·2	41·5	19,426	6,820	3,265	1,296	2,197	2,651	2,619	578
	December „	43·7	66·3	25·0	19,112	4,467	3,355	1,396	2,455	3,268	3,424	747
	1880.											
1	January 10	34·8	43·9	29·3	1754	389	385	128	188	291	310	63
2	„ 17	33·1	38·8	27·0	1730	396	359	117	180	251	361	66
3	„ 24	29·7	37·8	17·6	1900	466	366	109	214	292	873	80
4	„ 31	29·2	50·7	17·2	2200	473	434	112	266	382	434	99
5	February 7	38·8	48·6	23·0	3376	546	593	152	404	664	855	162
6	„ 14	40·6	51·6	31·7	2495	476	493	140	264	451	562	109
7	„ 21	46·7	54·9	39·2	2016	502	402	115	208	310	396	83
8	„ 28	40·5	52·4	28·4	1662	394	345	111	201	247	296	68
9	March 6	48·5	60·5	36·8	1607	391	337	105	203	236	263	72
10	„ 13	46·3	59·6	33·6	1442	376	279	114	182	196	244	51
11	„ 20	41·3	55·2	32·8	1465	394	283	93	152	223	268	52
12	„ 27	42·4	61·4	28·8	1505	356	332	98	195	227	258	39
13	April 3	44·9	62·4	27·4	1732	395	368	118	223	238	317	68
14	„ 10	44·8	59·2	35·1	1532	376	294	113	206	232	262	49
15	„ 17	46·4	63·4	35·8	1519	356	314	88	183	254	260	64
16	„ 24	51·9	66·9	38·1	1417	333	293	100	172	214	255	50
17	May 1	44·8	58·5	33·1	1387	315	285	108	189	219	232	39
18	„ 8	47·1	62·4	31·5	1416	323	270	115	191	252	217	48
19	„ 15	52·1	76·9	35·7	1889	331	264	86	192	244	237	35
20	„ 22	53·9	77·7	33·5	1297	292	259	92	169	221	217	47
21	„ 29	58·4	87·5	39·7	1333	299	250	119	174	212	232	47
22	June 5	51·7	69·4	37·5	1306	281	235	102	171	232	237	48
23	„ 12	53·9	68·8	41·0	1294	270	259	112	166	216	231	40
24	„ 19	58·9	74·4	46·1	1243	301	212	103	152	222	222	31
25	„ 26	59·9	75·1	51·0	1273	279	230	105	170	225	216	48
26	July 3	62·3	80·2	49·1	1300	310	233	120	158	211	224	44
27	„ 10	59·0	72·9	48·0	1326	382	243	96	152	198	216	39
28	„ 17	63·1	77·2	51·5	1441	460	254	115	173	197	213	29
29	„ 24	63·7	77·9	53·2	1482	546	235	95	170	199	190	47
30	„ 31	62·2	79·1	47·5	1746	685	290	123	160	228	217	43
31	August 7	60·2	77·2	46·4	1698	688	267	100	181	205	210	47
32	„ 14	63·8	79·2	50·1	1670	650	310	94	187	194	209	26
33	„ 21	63·8	78·0	57·4	1492	552	247	87	145	211	206	44
34	„ 28	62·7	80·9	53·2	1488	533	241	98	177	205	180	54
35	September 4	67·3	87·2	53·6	1460	515	249	87	154	192	209	54
36	„ 11	62·8	79·6	47·9	1391	489	242	85	172	186	169	48
37	„ 18	55·7	69·9	48·0	1438	468	239	112	170	215	188	46
38	„ 25	56·4	71·0	43·2	1441	435	221	99	194	224	218	50
39	October 2	56·6	73·5	41·5	1353	417	227	105	162	197	194	51
40	„ 9	50·5	66·3	34·1	1398	392	239	109	198	211	209	40
41	„ 16	48·0	58·5	32·7	1405	371	250	114	181	203	223	63
42	„ 23	42·9	58·1	30·4	1518	384	258	103	182	232	250	49
43	„ 30	42·0	58·2	29·2	1521	373	265	107	193	240	291	52
44	November 6	39·3	51·1	25·0	1513	351	262	113	213	244	262	68
45	„ 13	46·3	57·5	26·5	1636	357	286	126	197	232	313	75
46	„ 20	40·8	56·5	27·0	1489	325	239	103	177	291	290	64
47	„ 27	42·4	56·6	25·8	1521	344	252	103	196	259	313	54
48	December 4	44·1	52·6	26·7	1446	327	256	119	165	262	247	70
49	„ 11	47·7	55·8	36·5	1398	306	251	95	200	251	238	57
50	„ 18	43·3	51·7	34·2	1377	315	259	114	172	234	234	49
51	„ 25	40·6	53·6	28·9	1242	268	238	85	160	222	225	44
52	1881 Jan. 1	40·6	53·5	30·0	1648	354	300	105	211	287	329	62

TABLE 20.—Deaths in London; and Meteorology at Greenwich Observatory. (a)

YEARS.	Total Number of Deaths.	Mean Temperature of Air.	Dryness of Atmosphere.*	Fall of Rain in Inches.	Mean Hourly Amount of Horizontal Movement of the Air by Robinson's Anemometer.†
Averages of 40 Years, 1841-1880.	66,484	° 49°3	° ‡5°5	24·7	Miles. §8°3
Averages of 10 Years, 1841-1850.	52,206	49°4	5·2	24·5	1·1
Averages of 10 Years, 1851-1860.	61,023	49°0	5·7	24·4	10°0
Averages of 10 Years, 1861-1870.	73,632	49°6	5·9	23·9	10°8
Averages of 10 Years, 1871-1880.	79,075	49°2	5·5	26·3	11°6
1841	45284	48°7	5°0	33·3	—
1842	45272	49°6	4°6	22°6	—
1843	48574	49°4	3°7	24°6	—
1844	50423	48°6	4°9	24°9	—
1845	48332	47°6	4°4	22°4	—
1846	49089	51°3	5°1	25°3	—
1847	60442	49°5	5°4	17°8	—
1848	57628	50°4	6°4	30°2	—
1849	68432	50°0	6°6	23°9	—
1850	48579	49°3	6°1	19°7	11°0
1851	55354	49°2	6°5	21°6	10°3
1852	54213	50°6	7°4	34°2	10°6
1853	61202	47°7	6°2	29°0	9°5
1854	73697	48°9	4°7	18°7	10°3
1855	61506	47°1	4°5	21°1	9°9
1856	58786	49°0	5°6	22°2	10°6
1857	60150	51°0	5°2	21°4	9°3
1858	63882	49°2	6°5	17°8	9°7
1859	61617	50°7	6°0	25°9	9°5
1860	61821	47°0	4°6	32°0	10°0
1861	65001	49°4	5°0	20°8	9°9
1862	66950	49°5	4°7	26°2	10°0
1863	72346	50°3	6°0	20°0	10°3
1864	77723	48°5	7°0	16°7	9°5
1865	73460	50°3	6°2	29°0	9°3
1866	80129	49°8	5°6	30°5	11°4
1867	70588	48°6	5°6	28°4	11°8
1868	74908	51°6	6°8	25°2	12°2
1869	77933	49°5	5°7	24°0	12°2
1870	77278	48°7	6°7	18°5	11°1
1871	80332	48°7	6°0	22°3	10°5
1872	70893	50°7	5°5	30°0	11°9
1873	76634	48°9	5°4	23°4	11°8
1874	76806	49°4	4°7	20°0	11°5
1875	81513	49°4	5°9	27°3	11°5
1876	77411	50°1	6°4	26°8	12°1
1877	77002	49°7	6°6	26°8	13°0
1878	83695	49°6	5°8	29°2	11°8
1879	85540	46°2	4°0	31°3	11°3
1880	81128	49°4	5°0	29°7	11°7

NOTE.—This Table does not include the deaths in Wandsworth and Clapham for the years 1840-3; or the deaths in Hampstead and Lewisham for 1840-2.

(a) The deaths in this Table as well as the Meteorology are compiled from the Registrar General's Weekly Returns, which embrace 364 days, or for six years (1847, 1853, 1857, 1863, 1868, and 1873) 371 days; for this reason the figures differ from those which relate to complete years from 1st January to 31st December, published in Table 16.

* The column headed "Dryness of Atmosphere" is the difference between the dew point temperature and air temperature. The dew point temperature, for any year, may be obtained by subtracting the number in the column, headed "dryness" from the mean temperature in the same period.

† For the years 1850-59 the results are only approximative, having been reduced to Robinson's anemometer from observations made with Whewell's.

‡ Average of 39 years.

§ Average of 30 years.

|| Average of 9 years.

TABLE 21.—Deaths Registered in the Public Institutions of London, 1870-1880

	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.
TOTAL DEATHS IN PUBLIC INSTITUTIONS	12300	14665	12029	13101	13359	13946	14073	14936	15502	15999	14730
WORKHOUSES (including the Metropolitan Asylum Hospitals)	6833	9090	6743	7416	7619	8015	8174	9134	9606	9946	9059
PRISONS	78	76	57	62	70	77	69	62	46	57	59
MILITARY AND NAVAL ASYLUMS	86	81	93	66	81	96	79	69	75	88	64
GENERAL HOSPITALS	3614	3796	3863	4148	4310	4420	4442	4318	4549	4651	4435
HOSPITALS FOR SPECIAL DISEASES—	981	905	562	584	392	436	483	612	531	497	472
{ Women	31	16	16	29	18	20	33	34	9	21	18
{ Children	40	37	60	56	62	49	68	43	23	46	44
MILITARY AND NAVAL HOSPITALS	200	218	195	207	206	238	184	203	192	211	184
HOSPITALS FOR FOREIGNERS	102	99	94	128	115	122	100	113	138	143	127
LUNATIC ASYLUMS	335	347	346	405	486	473	441	348	333	339	268

TABLE 22.—Deaths in 151 Public Institutions, registered

		DEATHS.					PUBLIC INSTITUTIONS.		SUB-DISTRICT in which the Public Institution is situated.		DEATHS.		
		TOTAL.	Males.	Females.							TOTAL.	Males.	Females.
TOTAL DEATHS IN 151 PUBLIC INSTITUTIONS					14730	8418	6312						
52 WORKHOUSES - - - - -					9039	4931	4128	Bethnal Green - - - 15; 2. Green - - - 351 211 140					
11 PRISONS - - - - -					59	44	15	Whitechapel (Workhouse and Infirmary) - - - 16; 2. Mile End New Town - - - 354 190 164					
2 MILITARY ASYLUMS - - - - -					64	64	-	St. George-in-the-East - 17; 3. St. John - - - 307 177 130					
39 GENERAL HOSPITALS - - - - -					4435	2730	1705	Mile End Old Town - 19; 2. Eastern - - - 190 100 90					
28 HOSPITALS FOR SPECIAL DISEASES - - - - -					472	228	244	Whitechapel (South Grove) - - - (South Eastern) - - - 19; 2. Mile End Old Town - - - 2 2					
4 LYING-IN HOSPITALS - - - { Women Children - - -					18 44	- 24	18 20	City of London { part of { 19; 2. Mile End Old Town - - - 73 4 60					
5 MILITARY AND NAVAL HOSPITALS - - - - -					184	178	6	Poplar and Stepney Sick Asylum - - - { ditto - 20; 2. Bromley - - - 153 99 54					
3 HOSPITALS FOR FOREIGNERS - - - - -					137	95	32	Stepney (Aged and Infirm) - 20; 2. Bromley - - - 16 6 10					
7 LUNATIC ASYLUMS - - - - -					268	124	144	Poplar - - - - - 20; 3. Poplar - - - 47 25 22					
								North Street Infirmary - 20; 3. Poplar - - - 5 3 1					
PUBLIC INSTITUTIONS.		SUB-DISTRICT in which the Public Institution is situated.											
WORKHOUSES.													
Paddington - - - - 1; 1. St. Mary Paddington					134	63	71	St. Saviour's - - - 21; 1. Christch., Southwark. - 84 82 1					
Kensington (Workhouse and Infirmary) - - - 1; 3. Kensington Town -					236	115	121	Ditto - - - 21; 4. Borough Road - 17 11 6					
Fulham - - - - - 1a; 3. Fulham - - -					122	63	54	Ditto - - - 21; 7. St. Peter Walworth - 507 239 288					
Metrop. Asylum Hosp. - 1a; 3. Fulham - - -					47	23	24	St. Olave's - - - 22; 2. St. John Horsleydn. - 34 12 22					
Chelsea (Workhouse and Infirmary) - - - 2; 2. Chelsea North-west					222	120	102	Ditto - - - 22; 4. St. Mary Magdalen - 128 55 73					
St. George's (Fulham Road) 3; 2. Mayfair - - -					310	167	152	Ditto - - - 22; 6. Rotherhithe - - - 149 82 67					
Ditto (Mount-street) 3; 2. Mayfair - - -					20	12	8	Lambeth (Workhouse and Infirmary) - - - 23; 4. Lambeth Church 2d - 504 274 230					
Westminster - - - 4; 1. Golden Square - - -					88	43	45	Metrop. Asylum Hospitals 23; 7. Brixton - - - 182 89 95					
Marylebone (Workhouse and Infirmary) - - - 5; 3. Rectory (Maryleb.)					463	230	233	Lambeth (for Children) - 23; 8. Norwood - - - 7 5 2					
Hampstead - - - - 6; 1. Hampstead - - -					35	19	16	Wandsworth (Workhouse and Infirmary) - 24; 2. Battersea - - - 192 101 89					
Central London Sick Asylum - - - - 7; 2. Tottenham-court -					234	133	101	Westminster Industrial School - - - 24; 2. Battersea - - - 2 1 1					
Pancras (Workhouse and Supplementary Workh. - 7; 5. Camden Town -					345	156	189	Camberwell (Workhouse and Infirmary) - - - 25; 2. Camberwell - - - 251 133 118					
Highgate Infirmary (Central London Sick Asylum) - - - - 7; 6. Kentish Town -					245	153	92	Ditto (Nazareth House) - 25; 3. Peckham - - - 4 3 1					
Islington (Workhouse and Infirmary) - - - 8; 2. Islington East -					382	213	169	Metrop. Asylum Hospital 26; 1. St. Paul, Deptford - 134 73 61					
Islington (Workhouse Schools) - - - 8; 2. Islington East -					4	1	3	Greenwich - - - 26; 4. Greenwich East - 291 160 131					
Holborn Infirmary (College House) - - - 8; 2. Islington East -					241	142	99	Lewisham - - - 27; 3. Lewisham Village - 49 22 27					
City of London - - - 8; 2. Islington East -					50	26	24	Woolwich (Workhouse and Infirmary) - 28; 5. Plumstead East - 104 85 79					
Hackney - - - - 9; 4. Hackney - - -					200	114	86						
City of London - - - 9; 4. Hackney - - -					10	3	7						
Metrop. Asylum Hospitals 9; 4. Hackney - - -					246	146	100						
St. Giles (Workhouse and Infirmary) - - - 10; 2. St. Giles South -					172	95	77	PRISONS.*					
Holborn - - - - 12; 2. St. Andrew Eastern					36	21	15	Wormwood Scrubs Convict Prison - 1a; 2. St. Paul Hamsmith. - 4 4 -					
City of London - - - 13; 4. St. Bride - - -					13	6	7	Female Convict Prison - 1a; 3. Fulham - - - 2 - 2					
								Millbank Penitentiary - 3; 4. St. John Westminster - 12 8 4					
								House of Correction - 3; 5. St. Margaret Westminster. - 7 - 7					
								Pentonville, Model Prison (Males) - - - 8; 1. Islington West - 8 8 -					
								City Prison (Holloway) - 8; 1. Islington West - 3 3 -					
								Middlesex House of Detention - - - 12; 4. St. James Clerkwell. - 3 1 2					
								Middlesex House of Correction (Males) - - - 12; 5. Amwell (Holborn) - 8 8 -					
								City Prison (Newgate) - 13; 3. St. Sepulchre - 4 4 -					
								Convict Prison (Males) - 23; 7. Brixton - - - 3 3 -					
								County Prison - - - 24; 3. Wandsworth - - 5 5 -					
MILITARY ASYLUMS.													
Royal Military Hospital Chelsea, In-Pensioners -					63	63	-	2;					

NOTE.—The Workhouse Establishments printed in *italics* receive inmates from other Districts than those in which they are situated.

* PRISONS.—The deaths of the children of prisoners are not included.

† The Deaths of out-pensioners of Chelsea Hospital are not included.

during the 52 Weeks ending Saturday, 1st January 1881.

PUBLIC INSTITUTIONS.	SUB-DISTRICT in which the Public Institution is situated.	DEATHS.			PUBLIC INSTITUTIONS.	SUB-DISTRICT in which the Public Institution is situated.	DEATHS.		
		TOTAL.	Males.	Females.			TOTAL.	Males.	Females.
GENERAL HOSPITALS.									
St. Mary's	1; 2. St. John Paddington	234	156	78	Home for Consumptive Females	5; 4. St. Mary (Maryleb.)	8	-	8
West London	1a; 2. St. Paul Hammersm.	46	34	12	New Hospital (for Women)	5; 5. Christch. (Maryleb.)	5	-	5
Victoria (Children)	2; 1. Chelsea South	30	11	19	For Nervous Diseases	5; 6. St. John (Maryleb.)	3	1	2
Heyne (Children)	2; 1. Chelsea South	6	4	2	North London Consump- tion	6; 1. Hampstead	7	3	4
St. Raphael's	2; 2. Chelsea North-west	13	13	-	St. Saviour's (Cancer)	7; 1. Regent's Park	9	-	9
St. George's	3; 3. Belgrave	373	246	127	All Saints Institution (Women)	7; 2. Tottenham Court	1	-	1
Belgrave (Children)	3; 3. Belgrave	1	-	1	Central Throat and Ear Hospital	7; 3. Gray's Inn Lane	4	4	-
Westminster	3; 5. St. Margaret Westm.	153	77	76	Small-pox	8; 1. Islington West	21	13	8
Manuel	3; 5. St. Margaret Westm.	1	1	-	London Fever	8; 1. Islington West	73	37	36
Middlesex	5; 1. All Souls (Maryleb.)	270	154	116	Royal Westminster Oph- thalmic	11; 1. St. Martin's in - the-Fields	1	1	-
Adies'	5; 2. Cavendish Square	2	-	2	National for Paralyaed and Epileptic	12; 1. St. George the Martyr	15	8	7
Maritan Free	5; 3. Rectory (Maryleb.)	16	-	16	For Hip Diseases	12; 1. St. George the Martyr	1	1	-
Peter's Home (Kilburn)	6; 1. Hampstead	26	3	23	St. Mark's (Fistula)	12; 8. Old Street	4	1	3
University College	7; 2. Tottenham Court	300	171	129	Royal for Dis. of Chest	12; 9. City Road	30	23	7
London Temperance	7; 2. Tottenham Court	3	3	-	Royal London Ophthalmic	13; 7. Broad Street	1	-	1
Pyral Free	7; 3. Gray's Inn Lane	94	89	14	City of London for Diseases of Chest	15; 2. Green	56	41	15
North-West	7; 5. Camden Town	9	2	7	LYING-IN HOSPITALS.				
Great Northern	8; 1. Islington West	25	10	6	Queen Charlotte's	5; 4. St. Mary's Women (Maryleb.) Children	2	-	2
Invalid Asylum	9; 1. Stoke Newington	1	-	1	British	10; 2. St. Giles' Women South - Children	2	-	2
Marling Cross	11; 1. St. Martin in the- Fields	154	96	58	City of London	12; 9. City Road Women Children	11	-	11
King's College	11; 3. St. Clement Danes	170	108	62	General (York Road)	23; 2. Waterloo Women 2d - Children	3	-	3
London Homeopathic	12; 1. St. George the Martyr	30	16	14	MILITARY AND NAVAL HOSPITALS.				
St. John and St. Eliza- beth	12; 1. St. George the Martyr	15	-	15	Guards'	3; 4. St. John Westminster	24	24	-
Hospital for Sick Chil- dren	12; 1. St. George the Martyr	101	63	38	Seamen's	26; 4. Greenwich East	105	105	-
City Police	13; 1. St. Botolph	2	2	-	Herbert	28; 1. Charlton	45	44	1
Bartholomew's	13; 3. St. Sepulchre	577	334	243	Garrison Female	28; 3. Woolwich Arsenal	9	4	5
Children's	14; 5. Haggerston	33	18	15	Arsenal Infirmary	28; 3. Woolwich Arsenal	1	1	-
Isle of	15; 1. Hackney Road	18	14	4	HOSPITALS FOR FOREIGNERS.				
Metropolitan Free	16; 1. Spitalfields	14	14	-	French	4; 3. St. Anne Soho	32	23	9
London	16; 5. Whitechapel Church	629	409	220	German	9; 4. Hackney	86	68	18
St. London Children's	18; 1. Shadwell	66	44	22	Spanish and Portuguese Jews'	19; 2. Mile End Old Town Eastern	9	4	5
Plar	20; 2. Bromley	31	29	2	LUNATIC ASYLUMS.*				
Belina (Children)	21; 4. Borough Road	70	39	31	St. Luke's Hospital	12; 9. City Road	9	-	9
St. Mary's	22; 1. St. Olave	468	300	159	Hoxton House *	14; 2. St. Leonard	12	2	10
General Infirmary (Women and Children)	23; 1. Waterloo 1st	32	13	19	Bethnal House *	15; 2. Green	47	29	18
St. Thomas's	23; 3. Lambeth Church 1st	400	244	165	Bethlehem Hospital	21; 5. London Road	19	8	11
British Home for In- curables	24; 1. Clapham	3	1	2	Surrey County	24; 3. Wandsworth	91	47	44
General Hospital for In- curables	24; 3. Wandsworth	9	2	7	Peckham House *	25; 2. Camberwell	43	21	22
Children's Infirmary	27; 4. Sydenham	1	1	-	Camberwell House *	25; 2. Camberwell	47	17	30
HOSPITALS FOR SPECIAL DISEASES.									
St. Mary's (for Syphilis)	1; 1. St. Mary Paddington	5	2	3					
Consumption & Dis. of Chest	1; 4. Brompton	103	58	45					
Chelsea Home (Consumption)	2; 1. Chelsea South	2	2	-					
St. Peter's	2; 2. Chelsea North-west	62	13	49					
Women	2; 2. Chelsea North-west	2	-	2					
Women	3; 4. St. John Westminster	7	-	7					
Diseases of Throat	4; 1. Golden Square	7	7	-					
Women	4; 3. St. Anne Soho	21	-	21					
Art Diseases	4; 3. St. Anne Soho	10	4	6					
Peter's (Stone, &c.)	5; 1. All Souls (Maryleb.)	10	9	1					
Agnes (Consumption)	5; 1. All Souls (Maryleb.)	3	-	3					
National for Deformed	5; 1. All Souls (Maryleb.)	1	-	1					

LUNATIC ASYLUMS.—Private Lunatic Asylums are excluded from this list, except those in which pauper lunatics are received, which are marked with an asterisk.

TABLE 23. LONDON.—Weekly Deaths from Small-pox, Measles, Scarlet Fever, Diphtheria

WEEKLY Numbers from Six of these DISEASES during the Fo

	SMALL-POX.				MEASLES.				SCARLET FEVER.				DIPHTHERIA.			
	1877	1878	1879	1880	1877	1878	1879	1880	1877	1878	1879	1880	1877	1878	1879	1880
YEAR -	2544	1416	458	475	2347	1510	2488	1501	1576	1792	2706	3073	317	558	592	541
March Quar.	1192	556	221	122	351	708	289	340	282	457	454	785	70	104	119	131
June „	828	618	140	144	682	337	849	357	253	339	373	682	65	147	161	128
Sept. „	232	133	63	49	498	165	666	294	327	330	645	720	85	131	127	131
Dec. „	272	109	34	160	876	300	684	510	714	666	1234	886	97	176	185	154
Weeks.																
1 -	116	26	13	8	23	104	34	48	25	31	29	73	12	5	16	11
2 -	100	35	12	4	24	97	31	40	23	39	56	89	4	9	8	10
3 -	79	51	12	3	17	77	18	30	42	35	44	83	5	5	7	13
4 -	86	34	24	11	22	63	18	33	21	39	46	70	3	6	7	10
5 -	103	38	28	13	22	56	23	34	23	43	33	66	4	9	14	6
6 -	90	55	17	12	21	40	13	23	14	37	38	56	7	10	11	13
7 -	72	47	20	13	18	43	17	18	19	32	31	57	6	5	7	11
8 -	104	39	17	13	14	40	16	18	16	34	30	46	5	9	6	5
9 -	84	54	22	8	23	41	21	17	23	35	35	44	4	8	8	5
10 -	96	34	17	13	33	46	22	15	17	35	27	51	4	7	7	13
11 -	100	53	15	11	44	32	26	20	15	28	20	45	5	6	7	18
12 -	76	42	15	4	32	34	21	20	17	22	33	46	3	13	13	5
13 -	86	48	9	9	53	35	29	24	27	47	32	59	8	12	8	11
14 -	78	55	17	13	50	30	43	26	16	42	24	49	4	8	10	11
15 -	60	58	12	9	58	40	46	22	18	36	19	47	5	9	11	8
16 -	68	80	13	15	41	31	49	31	25	37	26	46	6	8	19	10
17 -	89	63	10	18	47	38	57	31	14	22	25	35	3	11	17	15
18 -	54	60	10	10	44	29	53	22	16	27	26	67	2	10	16	15
19 -	78	48	5	8	45	33	59	24	24	24	18	47	4	9	11	7
20 -	70	48	6	10	59	28	53	22	20	26	24	37	4	12	10	5
21 -	69	43	17	10	56	14	55	30	21	17	29	63	3	20	7	11
22 -	61	40	8	8	69	15	80	32	28	17	37	60	8	17	7	7
23 -	58	42	11	10	65	18	75	32	19	27	26	65	6	16	17	8
24 -	55	24	11	6	61	20	99	23	14	24	36	59	7	8	10	9
25 -	44	19	12	14	42	17	104	25	14	17	38	57	7	12	10	10
26 -	44	38	8	13	45	24	76	37	24	23	45	45	6	7	16	9
27 -	23	19	11	4	44	31	79	37	18	19	38	62	9	11	11	9
28 -	32	11	4	3	28	16	67	29	21	20	38	57	7	8	11	11
29 -	35	19	6	3	42	13	73	32	19	21	40	53	6	8	10	12
30 -	27	11	6	4	51	21	49	39	25	27	58	77	4	7	8	6
31 -	22	18	3	2	51	19	77	26	15	26	55	50	8	6	5	12
32 -	20	14	5	6	43	14	54	38	21	26	43	58	6	11	9	8
33 -	21	9	4	4	49	10	58	23	24	27	45	49	12	11	5	7
34 -	11	10	4	3	29	10	42	16	24	24	61	53	2	11	11	13
35 -	20	6	7	5	17	7	44	15	26	29	59	47	5	12	13	10
36 -	8	3	7	5	23	10	37	7	17	30	50	55	7	10	4	8
37 -	10	7	3	3	23	6	33	10	38	27	38	50	7	13	13	12
38 -	10	4	1	5	22	2	27	10	30	24	60	48	8	10	16	13
39 -	13	2	2	2	16	6	26	12	49	30	60	61	4	13	11	10
40 -	14	4	4	5	23	19	21	16	38	34	61	63	2	20	8	15
41 -	14	5	-	6	33	13	30	20	50	38	66	70	11	17	17	8
42 -	8	5	1	7	36	10	31	22	68	45	73	58	9	12	14	11
43 -	14	4	5	2	67	18	30	37	64	46	79	88	6	12	10	10
44 -	9	3	1	7	47	15	42	27	82	49	69	70	9	10	15	15
45 -	25	9	3	17	62	18	50	47	67	60	101	84	6	11	11	16
46 -	14	16	-	10	66	22	63	41	61	64	113	66	8	13	14	12
47 -	27	7	1	19	82	18	57	37	55	54	106	83	11	11	20	11
48 -	31	8	3	10	81	28	78	54	52	70	102	73	5	7	8	10
49 -	25	4	5	12	76	28	67	51	46	62	90	61	5	9	15	8
50 -	31	17	3	33	92	34	63	51	54	46	119	64	10	14	10	12
51 -	31	14	2	15	102	43	65	40	46	55	100	45	3	18	16	16
52 -	29	13	2	17	109	34	48	67	31	48	86	61	12	22	11	10
53 -	-	-	4	-	-	-	39	-	-	-	69	-	-	-	16	-

Whooping-cough, Fever, and Diarrhoea, during the Four Years 1877-1880; and the **AVERAGE** years 1840-1879, and from **Diphtheria** during the Twenty Years 1860-1879.

HOOPING-COUGH.				FEVER.				DIARRHŒA.				WEEKLY AVERAGE in 40 Years, 1840-79.							
	1878	1879	1880	1877	1878	1879	1880	1877	1878	1879	1880	Small-pox.	Measles.	Scarlet Fever.	Diphtheria (20 years).	Whooping- cough.	Fever.	Diarrhœa.	
60	4446	8000	3438	1249	1361	1099	886	2479	3651	1913	3767	19	29	47	9	45	40	48	YEAR.
78	1376	883	1956	250	355	276	218	182	160	176	153	23	27	38	9	59	40	13	March
33	1600	775	901	252	293	205	192	261	280	192	255	23	31	34	8	53	37	18	June
51	943	479	346	291	299	226	240	1766	2932	1184	2981	15	25	49	8	31	39	135	Sept.
8	527	863	235	447	414	392	236	270	279	361	378	16	34	68	10	36	45	24	Dec.
																			Weeks.
32	89	65	120	22	28	37	22	18	9	9	10	24	39	50	9	51	47	13	-
25	69	66	114	22	33	26	17	16	17	9	9	23	36	46	10	52	42	14	-
31	94	67	140	18	21	27	11	18	8	13	14	26	32	46	8	57	40	13	-
40	117	71	193	21	32	25	19	11	13	13	5	24	27	41	8	59	40	13	-
41	89	64	248	20	20	17	23	18	11	16	11	25	25	37	9	59	40	14	-
44	114	67	197	20	28	20	19	11	22	13	19	25	23	37	9	60	39	14	-
33	124	67	171	18	30	18	23	16	14	15	14	24	22	37	9	58	39	13	-
38	100	60	135	17	24	14	13	14	11	16	9	23	24	35	8	60	39	14	-
40	112	50	155	16	27	16	14	22	11	19	14	23	24	35	9	59	38	15	-
28	102	66	112	25	28	12	19	10	7	12	14	22	25	33	8	60	39	13	-
36	84	74	114	21	27	22	10	10	13	11	14	21	25	30	8	60	40	12	-
37	124	101	115	25	29	20	18	11	13	12	9	21	27	30	8	62	36	12	-
48	158	85	142	14	28	22	10	7	11	18	11	21	28	32	9	66	40	12	-
39	146	78	85	27	29	13	15	9	9	23	10	22	29	30	7	63	37	12	-
42	157	74	111	12	32	19	16	13	14	13	11	23	29	31	9	63	38	12	-
46	123	72	83	26	26	17	15	11	18	12	8	24	28	32	8	61	39	13	-
30	136	88	78	18	24	18	13	12	11	14	12	23	30	31	9	57	38	12	-
43	117	72	67	21	29	23	21	9	23	17	13	24	30	32	7	56	37	13	-
53	110	69	89	16	14	18	8	20	7	10	13	22	31	31	8	55	36	12	-
59	102	59	67	12	22	16	18	22	21	13	18	24	31	32	9	54	36	13	-
34	116	57	76	24	20	16	14	13	16	13	17	25	31	35	7	53	36	14	-
41	152	52	60	16	15	12	16	13	20	10	20	21	34	36	9	50	36	16	-
40	135	41	48	16	22	14	13	16	25	13	16	23	34	38	8	47	36	18	-
38	101	42	56	16	22	12	14	27	21	18	21	22	36	34	8	42	37	23	-
35	108	31	37	22	19	8	14	46	23	15	32	21	33	39	9	42	34	33	-
28	97	40	44	26	19	19	15	50	72	21	64	21	32	38	9	40	35	47	-
35	108	35	30	19	17	11	16	96	145	13	93	18	32	39	8	38	35	72	-
46	85	36	35	21	19	12	16	169	249	29	165	17	29	39	8	37	36	104	-
36	106	36	36	21	19	5	16	173	339	27	202	17	29	40	8	37	37	146	-
23	101	33	28	24	21	15	18	184	434	25	350	16	29	42	8	35	37	189	-
21	89	42	33	22	21	13	20	176	470	46	367	15	29	45	7	33	35	194	-
19	77	34	32	15	32	14	19	166	339	90	348	14	26	46	7	33	37	187	-
18	60	37	24	28	17	20	20	194	263	127	265	14	26	46	8	28	38	175	-
7	74	40	23	19	16	19	17	158	195	174	270	14	23	49	9	28	39	160	-
9	56	43	25	18	23	13	23	154	148	209	232	13	21	51	9	29	41	145	-
2	54	36	19	21	25	25	18	87	120	146	223	13	21	55	8	27	40	126	-
9	37	42	17	30	32	22	24	86	89	134	214	13	20	59	9	26	43	103	-
8	43	36	24	31	30	21	16	71	80	92	142	13	21	61	10	26	44	84	-
8	53	29	20	22	27	36	17	52	61	72	110	12	20	68	8	26	43	71	-
1	40	34	19	19	28	38	25	36	45	61	64	13	23	71	11	27	43	54	-
1	52	28	17	29	34	29	27	48	37	60	66	13	23	74	10	26	44	45	-
1	33	27	11	47	30	26	24	25	36	48	59	12	26	73	10	27	45	36	-
1	33	34	24	39	30	31	21	23	30	35	28	14	26	75	9	28	46	29	-
5	22	37	10	39	34	32	22	19	21	30	35	13	30	74	9	31	46	24	-
4	33	25	17	42	36	41	22	12	26	26	21	16	32	72	10	31	44	20	-
3	43	44	16	28	37	20	17	23	11	23	22	17	35	73	11	35	45	19	-
2	31	41	15	38	24	33	15	13	15	20	18	16	38	71	12	36	45	16	-
7	39	40	12	36	52	28	17	16	14	13	9	18	42	67	10	39	45	16	-
6	42	57	29	27	29	31	9	19	9	9	16	19	42	63	10	43	46	15	-
5	47	82	22	26	33	19	9	10	11	11	10	20	42	62	10	46	46	14	-
4	50	111	27	41	23	26	14	14	14	4	15	21	44	55	11	48	43	13	-
2	62	129	16	36	24	18	14	12	10	8	15	22	40	52	11	52	41	13	-
-	-	165	-	-	-	20	-	-	-	13	-	-	-	-	-	-	-	-	53

Births, Deaths, and Meteorology of London, 1880.

TABLE 24.—**Births and Deaths** Registered in **London**; and **Meteorology** at **Greenwich**, in each of the 52 Weeks of 1880.

No. of Week.	Week ending	BIRTHS.			DEATHS.			Mean Temperature of the Air.	Mean of the		Dryness of Atmosphere.*	Fall of Rain in Inches.	Mean Hourly Amount of Horizontal Movement of the Air in each Week.†	Sun above Horizon in Hours.	Registered Sunshine in Hours.
		Total.	Males.	Femls.	Total.	Males.	Femls.		Highest Readings of the Thermometer.	Lowest Readings of the Thermometer.					
1	1880. Jan. 10	2570	1278	1292	1754	867	887	34° 8	37° 7	31° 5	1° 7	0° 05	Miles. 5° 0	56° 0	3° 9
2	" 17	2595	1328	1267	1730	852	878	33° 1	36° 4	29° 6	3° 5	0° 20	8° 1	57° 6	5° 1
3	" 24	2644	1340	1304	1900	931	969	29° 7	34° 0	24° 4	6° 4	0° 01	6° 7	59° 7	6° 1
4	" 31	2436	1275	1161	2200	1084	1116	29° 2	37° 3	20° 6	2° 7	0° 00	4° 2	62° 1	27° 7
5	Feb. 7	2684	1360	1324	2376	1065	1307	38° 8	40° 0	32° 9	1° 2	0° 25	8° 4	64° 9	10° 9
6	" 14	2701	1369	1332	2405	1188	1307	40° 6	47° 1	34° 2	3° 9	0° 61	13° 4	67° 9	14° 0
7	" 21	2659	1346	1313	2016	1007	1009	46° 7	52° 3	43° 1	3° 8	1° 12	21° 0	70° 9	16° 4
8	" 28	2746	1432	1314	1662	870	792	40° 5	46° 1	35° 3	4° 5	0° 35	14° 1	74° 2	10° 2
9	March 6	2777	1446	1331	1607	810	787	48° 5	54° 5	43° 1	6° 1	0° 41	26° 4	76° 9	14° 8
10	" 13	2848	1492	1356	1442	737	705	46° 3	55° 1	39° 4	3° 6	0° 07	8° 5	80° 0	31° 8
11	" 20	2757	1410	1347	1465	768	697	41° 3	49° 4	35° 3	4° 3	0° 00	10° 7	83° 3	37° 8
12	" 27	2584	1342	1242	1505	766	739	42° 4	52° 2	33° 0	7° 7	0° 00	11° 7	86° 6	48° 2
13	April 3	2492	1279	1213	1732	909	823	44° 9	55° 6	36° 6	4° 8	0° 54	12° 2	89° 8	23° 1
14	April 10	2956	1533	1423	1532	802	730	44° 8	53° 6	38° 4	5° 4	0° 41	13° 9	93° 1	17° 3
15	" 17	2656	1329	1327	1519	787	732	46° 4	54° 1	39° 6	5° 5	0° 98	9° 9	96° 2	24° 9
16	" 24	2616	1334	1282	1417	730	687	51° 9	61° 8	42° 8	8° 3	0° 30	15° 5	99° 3	44° 0
17	May 1	2559	1302	1257	1387	727	650	44° 8	54° 0	36° 8	7° 0	0° 08	14° 6	102° 2	44° 9
18	" 8	2823	1437	1386	1416	755	661	47° 1	56° 7	39° 6	6° 4	0° 17	10° 5	105° 0	27° 3
19	" 15	2687	1377	1310	1389	698	691	52° 1	63° 9	41° 2	7° 9	0° 00	12° 9	107° 6	50° 7
20	" 22	2296	1195	1101	1297	653	644	53° 9	66° 0	42° 3	9° 2	0° 00	12° 6	110° 1	47° 2
21	" 29	2618	1358	1260	1333	692	641	58° 4	71° 1	46° 9	11° 2	0° 02	13° 5	112° 2	50° 1
22	June 5	2489	1270	1219	1306	685	621	51° 7	61° 2	43° 7	6° 1	0° 55	11° 3	113° 9	16° 6
23	" 12	2736	1406	1330	1294	675	619	53° 9	64° 6	45° 8	6° 6	0° 38	12° 2	115° 1	30° 3
24	" 19	2368	1187	1181	1243	661	582	58° 9	68° 0	51° 2	5° 0	0° 88	8° 8	115° 8	30° 9
25	" 26	2492	1285	1207	1273	687	586	59° 3	71° 2	52° 4	4° 3	0° 75	7° 6	116° 1	29° 5
26	July 3	2493	1265	1228	1300	687	613	62° 3	74° 5	53° 3	6° 6	1° 01	12° 1	115° 4	42° 6
27	July 10	2510	1268	1242	1326	679	647	59° 0	68° 9	51° 5	6° 9	0° 29	12° 1	114° 4	41° 5
28	" 17	2418	1234	1184	1441	752	689	63° 1	76° 2	55° 0	5° 1	0° 33	7° 1	112° 9	26° 0
29	" 24	2595	1303	1292	1482	799	683	63° 7	74° 9	54° 9	7° 7	0° 34	8° 9	111° 1	42° 7
30	" 31	2488	1290	1198	1746	976	770	62° 2	73° 7	54° 1	6° 3	1° 84	13° 2	109° 0	46° 9
31	August 7	2270	1092	1178	1698	883	815	60° 2	70° 8	52° 4	3° 6	0° 72	8° 3	106° 2	15° 9
32	" 14	2602	1327	1275	1670	894	776	63° 8	75° 3	54° 9	3° 6	0° 15	11° 3	103° 6	39° 8
33	" 21	2512	1275	1237	1492	759	733	63° 8	73° 6	58° 7	4° 9	0° 00	11° 5	100° 7	18° 6
34	" 28	2497	1253	1244	1488	789	699	62° 7	71° 5	56° 6	4° 7	0° 10	10° 7	97° 6	14° 8
35	Sept. 4	2392	1212	1180	1460	766	694	67° 3	79° 2	57° 0	9° 5	0° 00	7° 2	94° 6	55° 5
36	" 11	2463	1232	1231	1391	748	643	62° 8	73° 5	54° 7	6° 1	1° 15	8° 1	91° 3	26° 7
37	" 18	2382	1213	1169	1438	764	674	55° 7	64° 6	49° 5	3° 0	2° 31	12° 0	88° 3	21° 1
38	" 25	2599	1360	1239	1441	758	683	56° 4	64° 5	50° 6	3° 5	0° 19	9° 4	85° 0	19° 8
39	October 2	2453	1268	1185	1353	704	649	56° 6	67° 1	48° 9	2° 4	0° 21	4° 7	81° 8	20° 2
40	October 9	2261	1125	1136	1398	742	656	50° 5	57° 4	44° 7	1° 9	3° 07	11° 6	78° 6	10° 9
41	" 16	2606	1318	1288	1405	742	663	48° 0	54° 5	42° 1	2° 9	1° 30	9° 3	75° 6	10° 6
42	" 23	2362	1219	1143	1518	797	721	42° 9	49° 0	38° 2	2° 7	1° 35	10° 7	72° 4	7° 1
43	" 30	2490	1310	1180	1521	796	725	42° 0	49° 0	35° 4	2° 5	1° 72	13° 0	69° 3	9° 9
44	Nov. 6	2706	1383	1323	1513	768	745	39° 3	47° 2	31° 2	4° 9	0° 00	10° 1	66° 4	24° 2
45	" 13	2538	1299	1239	1636	802	834	46° 3	51° 5	40° 2	4° 6	0° 24	15° 6	63° 5	7° 8
46	" 20	2343	1239	1104	1489	742	747	40° 8	46° 9	36° 3	3° 5	1° 38	16° 6	61° 1	8° 1
47	" 27	2432	1248	1184	1521	747	774	42° 4	48° 0	36° 4	3° 1	0° 46	16° 7	58° 6	16° 8
48	Dec. 4	2442	1256	1186	1446	733	713	44° 1	49° 3	37° 5	3° 1	0° 04	11° 4	56° 7	4° 4
49	" 11	2461	1271	1190	1398	744	654	47° 7	51° 2	43° 4	3° 9	0° 00	14° 1	55° 4	5° 2
50	" 18	2480	1268	1212	1377	709	668	43° 3	47° 7	33° 1	3° 9	0° 76	17° 7	54° 4	3° 5
51	" 25	2059	1024	1035	1242	635	607	40° 6	45° 7	34° 9	3° 6	1° 26	16° 6	53° 9	9° 4
52	1880 Jan. 1	2519	1294	1225	1648	841	807	40° 6	44° 7	35° 8	2° 6	0° 96	12° 6	54° 7	1° 1

* The column headed "Dryness of Atmosphere" is the difference between the dew point temperature and air temperature. The mean dew point temperature, for any week, may be obtained by subtracting the number in the column headed "dryness" from the mean temperature in the same period.
† By Robinson's Anemometer, adopted in place of Whewell's, which was used formerly.

TABLE 25.—**Greenwich Meteorological Elements** for the Year 1880. By J. GLAISHER, Esq., F.R.S.

1880. MONTHS.		Mean Reading of the Barometer.	TEMPERATURE OF THE AIR.								Departure from Average of 109 Years. (1771-1879.)	Mean Temperature of the Dew Point.	Mean Tension of Vapour.	Weight of Vapour in, a Cubic Foot of Air.	Mean additional Weight required for Saturation.	Mean Degree of Humidity. Saturation = 100.	Mean Weight of a Cubic Foot of Air.	RELATIVE PROPORTIONS OF WIND.				Mean Amount of Cloud.	RAIN.	
			Highest by Day.	Lowest by Night.	Range in Month.	Mean of all Highest.	Mean of all Lowest.	Mean Daily Range.	Mean for the Month.	N.								E.	S.	W.	Number of Days it fell.		Amount collected.	
January	in.	30° 204	54° 1	17° 2	36° 9	37° 7	28° 1	9° 6	33° 2	- 3° 3	29° 5	in.	grs.	grs.	grs.	grs.	5	11	6	9	6° 9	9	in.	
February	29° 634	54° 9	23° 0	31° 9	48° 0	31° 6	11° 4	41° 8	+ 3° 1	38° 5	0° 233	2° 7	0° 4	86	547	3	3	9	14	6° 8	17	0° 27		
March	29° 967	61° 4	34° 2	34° 0	53° 1	36° 9	16° 2	44° 3	+ 3° 2	38° 9	0° 238	2° 7	0° 6	81	550	5	15	5	6	5° 4	4	0° 58		
April	29° 701	65° 9	31° 5	36° 0	64° 0	42° 2	16° 0	47° 1	+ 1° 0	40° 7	0° 224	2° 9	0° 8	79	543	2	11	7	10	6° 2	16	2° 21		
May	29° 710	68° 9	34° 8	37° 5	65° 9	43° 2	16° 0	49° 5	+ 1° 0	44° 0	0° 238	3° 3	1° 2	73	541	9	12	2	8	5° 3	4	0° 49		
June	29° 733	80° 2	37° 5	42° 7	68° 1	49° 5	18° 6	57° 6	+ 0° 7	51° 7	0° 244	3° 3	1° 0	82	531	6	10	4	10	6° 6	20	2° 26		
July	29° 727	79° 1	47° 5	31° 6	72° 9	53° 8	16° 1	61° 7	+ 0° 1	55° 5	0° 441	9° 9	1° 3	81	537	3	10	4	10	6° 6	20	2° 26		
August	29° 818	80° 9	46° 4	34° 5	72° 9	55° 8	17° 1	62° 8	+ 1° 9	57° 7	0° 477	5° 2	1° 1	83	527	6	11	6	8	6° 9	5	0° 97		
September	29° 805	87° 2	49° 2	38° 0	69° 6	52° 1	17° 5	59° 7	+ 3° 2	54° 8	0° 430	4° 8	1° 0	84	520	4	3	10	13	6° 0	12	4° 01		
October	29° 705	66° 3	37° 1	33° 3	56° 5	40° 2	13° 1	46° 2	+ 3° 4	43° 4	0° 281	3° 2	0° 4	85	544	9	9	4	9	7° 1	18	7° 65		
November	29° 743	57° 5	25° 0	32° 1	48° 5	38° 5	12° 1	42° 5	+ 0° 2	38° 1	0° 220	2° 7	0° 5	85	550	6	4	7	13	6° 0	14	2° 08		
December	29° 748	55° 8	27° 8	28° 0	47° 7	37° 9	9° 8	43° 2	+ 4° 2	39° 8	0° 245	2° 8	0° 4	89	548	5	2	7	17	7° 2	16	3° 02		
Means		29° 810	69° 3	32° 5	36° 8	57° 6	42° 5	15° 2	49° 4	+ 0° 8	44° 4	0° 305	3° 4	0° 7	84	542	62	94	76	134	6° 4	158	29° 68	
																	Sums.						Sum	Sum

TABLE 27.—**Number of Houses, &c.** supplied by the several **London Water Companies** during each **Month** of the Year 1880 ; also the **Average Daily Supply of Water** in **GALLONS** by the several **COMPANIES** during each **MONTH**. (Compiled from Returns furnished by the several **Companies** during the Year.)

COMPANIES.												
NUMBER OF HOUSES, &c. SUPPLIED IN												
AVERAGE DAILY SUPPLY OF WATER IN GALLONS DURING THE MONTHS OF												
COMPANIES.												
Total Quantities supplied												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER SOURCES.												
FROM THAMES.												
FROM LEA AND OTHER												

TABLE 23.—Average Number of Houses, &c. supplied by the several London Water Companies during the Year 1880; the Average Daily Supply of Water in GALLONS, and in CUBIC METRES* for ALL PURPOSES, in GALLONS for DOMESTIC PURPOSES, and the NUMBER of GALLONS supplied to each HOUSE. (Compiled from Monthly Returns furnished by the several Water Companies during the Year.)

WATER COMPANIES.	AVERAGE NUMBER of HOUSES supplied during the Year.	AVERAGE DAILY SUPPLY OF WATER DURING THE YEAR IN				
		Gallons.†	Cubic Metres.†	Gallons used for Domestic purposes (esti- mated).	Gallons used for Domestic purposes daily to each House.	
					1879.	1880.
Total	588,050	142,190,921	646,039	116,596,555	195	198
FROM THAMES	281,916	71,879,775	326,583	58,941,415	208	209
FROM LEA AND OTHER SOURCES	306,134	70,311,146	319,456	57,655,140	184	188
FROM THAMES.						
CHELSEA	30,133	8,704,833	39,823	7,187,163	230	239
WEST MIDDLESEX	54,849	11,118,255	50,515	9,116,969	163	166
SOUTHWARK AND VAUXHALL	90,585	23,985,826	108,979	19,668,377	230	217
GRAND JUNCTION	41,882	12,645,219	57,453	10,369,080	243	248
LAMBETH	64,517	15,365,642	69,813	12,599,826	181	195
FROM LEA AND OTHER SOURCES.						
NEW RIVER	130,939	28,214,250	128,190	23,135,685	175	177
EAST LONDON	125,159	33,550,784	152,437	27,511,643	211	220
KENT	50,036	8,546,112	38,829	7,007,812	141	140
Columns	1.	2.	3.	4.	5.	6.

Note.—According to returns of the London Water Companies made to the Select Committee on East London Water Bills (Session 1867), it is estimated that during the year 1866 about 82 per cent. of the total supply of water for all purposes was for domestic use; this proportion has been applied in estimating the quantities for the year 1880 in column 4., showing the gallons probably used for domestic purposes.

The average daily quantity of water supplied by the London Companies during the year 1880 was 142,190,921 gallons (646,038 cubic metres, equal to about as many *tuns* by measure, *tons* by weight), of which about 116,596,555 gallons (529,752 cubic metres) were probably used for domestic purposes. The quantity used daily for domestic purposes was 198·3 gallons (90·1 decalitres) to each house, and 27·9 gallons (12·7 decalitres) to each person. The returns of the water companies include uninhabited as well as inhabited houses.

* A cubic metre is equal in volume to 35·3 cubic feet, or to 220·09668 imperial gallons. It is nearly equivalent to the old English *tun* of four hogsheds, holding 35·248 cubic feet. It is in general use on the Continent; and its volume of water weighs a metric ton, differing inconsiderably in weight from the ton in common use. It is equal to 100 decalitres. One decalitre equals 2·2009668 gallons.

The quantities of water in columns 2. and 3. include the supply for various purposes other than for domestic consumption.

REPORT on the ANALYSIS of the WATERS supplied by the METROPOLITAN WATER COMPANIES during the several MONTHS of the YEAR 1880. By Professor FRANKLAND, D.C.L., F.R.S., &c.

*Royal College of Chemistry, South Kensington Museum, S.W.,
10th February 1881.*

SIR,

I HAVE to submit to you, in the accompanying tabular statements, the results of the chemical examination of the water supplied to the inner and portions of the outer circle of the Metropolis during the year 1880.

The inner circle of London was supplied as usual by eight companies, with an average daily volume of 142,190,921 gallons of water, being an increase of no less than $7\frac{3}{4}$ millions of gallons upon the previous year. Of this 71,879,776 gallons were sometimes grossly polluted by sewage matters; 61,765,034 gallons were occasionally so polluted, but to a less degree; whilst only 8,546,112 gallons were uniformly of excellent quality for drinking. The average daily volume supplied per head of population was 34.1 gallons. This is greatly in excess of what is required, and indicates gross waste; but whilst the quantity was abundant, the quality of the river water was generally indifferent, and often very objectionable.

The temperature of each sample at the time of collection, and its appearance in a two-foot tube, have been recorded; and in all cases of turbidity, a microscopic examination of the sediment deposited by the water on standing has been made.

Table A. gives the temperature of the water as it flowed from the main at the time of collection. Classifying the waters into three groups according to their sources, the following variations of temperature were observed:—

The temperature of the Thames water supplied by the Chelsea, West Middlesex, Southwark, Grand Junction, and Lambeth Companies varied from $5^{\circ}0$ C. (41° Fahr.) in February to $20^{\circ}0$ C. (68° Fahr.) in August. The water was, therefore, unpleasantly cold in winter, whilst it was unpalatably warm in summer.

The temperature of the Lea water delivered by the New River and East London Companies ranged from $5^{\circ}5$ C. (42° Fahr.) in January and February, to $19^{\circ}5$ C. (67° Fahr.) in August. It was thus subject to the same objectionable extremes as the Thames water.

The Kent and Colne Valley Companies deep-well water showed a minimum temperature of $4^{\circ}4$ C. (40° Fahr.) in February, and a maximum of 14° C. (57° Fahr.) in September. This is rather a wide range for deep-well water, but if the Kent Company's water be considered separately the variation was only from 11° C. (52° Fahr.) in January to 14° C. (57° Fahr.) in September.

Thus the temperature of the river water ranged through no less than 15° C. (27° Fahr.), whilst the deep-well water delivered by the Colne Valley Company ranged through $7^{\circ}8$ C. (14° Fahr.), and that supplied by the Kent Company through only $3^{\circ}0$ C. ($5^{\circ}4$ Fahr.)

Table B. shows the total amount of solid matters contained in 100,000 parts by weight of water. These solid matters were composed of a great variety of substances, by far the largest proportion being entirely harmless when the water was used for drinking, but decidedly objectionable when it was used for washing, because the water was thereby rendered hard.

A small proportion of the total solid matters consisted of organic substances. These are always objectionable, and at times, when present in river water, they are dangerous to health. The average proportion of total solid matters was rather less than in the previous year. The deep-well waters, however, delivered by the Kent Company and by the Tottenham Board of Health contained the larger proportion of these matters; but the deep-well water supplied by the Colne Valley Company contained less than one half the quantity found in the river waters, and less than one third of that found in the Kent and Tottenham waters. This comparative freedom from saline matters is attained by adding a small quantity of slaked lime to the water before it leaves the Company's works. The process could be applied with equal success to all the water supplied to the Metropolis.

Tables C. and D. record the proportion of organic impurity contained in the waters as they were sent out by the various companies, this impurity being represented by the two most important constituents of organic matter—carbon and nitrogen. These two tables are of importance owing to the pollution of the Thames and Lea being to a great extent of animal origin. During the past year these rivers were often much polluted by organic matters, and although the various companies drawing from them almost invariably subjected their waters to efficient filtration before delivery, yet it was only during the months of May, June, and July, that the water sent out by them was even in some measure fit to drink. Taking the mean proportion of organic impurity in the Thames water delivered in 1868 as 1,000, I find that in the subsequent years, 1880 included, the following proportions were present :—

Year.	Proportion of organic impurity present in Thames water as delivered in London.					
1868	-	-	-	-	-	1,000
1869	-	-	-	-	-	1,016
1870	-	-	-	-	-	795
1871	-	-	-	-	-	928
1872	-	-	-	-	-	1,243
1873	-	-	-	-	-	917
1874	-	-	-	-	-	933
1875	-	-	-	-	-	1,030
1876	-	-	-	-	-	903
1877	-	-	-	-	-	907
1878	-	-	-	-	-	1,056
1879	-	-	-	-	-	1,175
1880	-	-	-	-	-	1,263

From this table it will be seen that never since these analyses have been made has the water abstracted from the Thames been so much polluted by organic matters. The nearest approach to this degree of pollution was reached in the year 1872, but at this time the several companies were provided with far less efficient apparatus for filtration than at present, so that the actual pollution of the unfiltered Thames water during the last year must have been even still more strikingly in excess of that of previous years. Owing to the flooded condition of the river, even in summer, much filthy matter from sewers, cesspools, and cultivated fields, was swept into it during those periods of the year when, through absence of heavy rain, they do not usually reach the river. Although of late the storage capacity of their reservoirs has been greatly increased by most of the water companies in order to obviate the necessity of drawing from the Thames when in flood, yet no practicable amount of storage could have prevented the supply of such water to London during the last three years.

The water drawn from the Lea, although not generally polluted to the same extent as Thames water, was at times of very bad quality; that supplied by the New River Company in the month of February was unfit for drinking, as was that delivered by the East London Company in the months of August, September, and October. Taking, as before, the mean proportion of organic impurity in the Thames water supplied to London in 1868 as 1,000, I find in that and subsequent years, down to 1880 inclusive, the following proportions in the Lea water delivered by the New River and East London Companies :—

Year.	Proportion of organic impurity present in Lea water as delivered in London.						
1868	-	-	-	-	-	-	484
1869	-	-	-	-	-	-	618
1870	-	-	-	-	-	-	550
1871	-	-	-	-	-	-	604
1872	-	-	-	-	-	-	819
1873	-	-	-	-	-	-	693
1874	-	-	-	-	-	-	583
1875	-	-	-	-	-	-	751
1876	-	-	-	-	-	-	562
1877	-	-	-	-	-	-	596
1878	-	-	-	-	-	-	747
1879	-	-	-	-	-	-	954
1880	-	-	-	-	-	-	1,143

The pollution of the Lea by organic matters, which has been steadily increasing since the year 1876, and already in 1879 was unprecedented, experienced a further augmentation last year and exceeded that of the Thames during all the previous twelve years, excepting 1872 and 1879. The water of both the Thames and Lea, therefore, is becoming year by year less suitable for domestic use.

Measured by the same standard, the organic impurity in the deep-well waters delivered in London during the last 13 years was as follows:—

1868	-	-	-	-	-	-	254
1869	-	-	-	-	-	-	312
1870	-	-	-	-	-	-	246
1871	-	-	-	-	-	-	150
1872	-	-	-	-	-	-	221
1873	-	-	-	-	-	-	250
1874	-	-	-	-	-	-	287
1875	-	-	-	-	-	-	250
1876	-	-	-	-	-	-	246
1877	-	-	-	-	-	-	243
1878	-	-	-	-	-	-	323
1879	-	-	-	-	-	-	387
1880	-	-	-	-	-	-	393

The wholesomeness of this deep-well water contrasts even still more favourably with that of the water obtained from the Thames and Lea than do these numbers with those representing the organic impurity of the water from the latter sources. Although the noxious organic matters in water are in suspension, yet their state of division is so fine as to render their removal by artificial filtration through sand impossible. There is thus no protection against the distribution of noxious organic matter in polluted river water, even when efficiently filtered. On the other hand, the prolonged and exhaustive filtration through great thicknesses of porous strata, which deep-well water has undergone, render it virtually impossible that any portion of the organic matter still remaining in it should be of this objectionable character.

Table E. shows the proportional amount of organic elements (organic carbon and organic nitrogen) in each of the waters supplied by the various companies. The average amount of these elements found in the Kent Company's water during the nine years ending December 1876 is taken as unity. According to this Table the

maximum, minimum, and average proportions in each of these waters during the year 1880 were as follows:—

Sources.		Maximum	Minimum.	Average.
Deep wells	Kent -	1·9	1·3	1·6
	Colne Valley -	1·6	1·1	1·4
	Tottenham -	2·6	1·4	1·8
River Lea	New River -	6·0	1·7	3·6
	East London -	7·0	2·5	4·7
River Thames	Chelsea -	5·7	3·1	4·3
	West Middlesex -	8·4	2·2	4·8
	Southwark -	7·9	3·0	5·9
	Grand Junction -	7·4	2·4	5·0
	Lambeth -	7·8	2·6	5·6

These numbers show that the river waters were much inferior in quality to the deep-well waters, which were uniformly pure and wholesome. Of the deep-well waters, that supplied by the Colne Valley Company was the best. Of the river water abstracted from the Lea, that sent out by the New River Company was the best; and of that taken from the Thames the best average supplies were furnished by the Chelsea and West Middlesex Companies, the water of the latter company, however, shows the highest maximum as well as the lowest minimum of pollution. On the other hand the worst average water was delivered by the Southwark and Lambeth Companies.

The following Table exhibits the maximum amount of organic pollution in the Thames and Lea waters from 1868 to 1880 inclusive, the average of the samples from each source in the month of greatest pollution being taken for comparison.

MAXIMUM AMOUNT OF ORGANIC POLLUTION.

THAMES.			LEA.		
Year.	Elements of organic matter in parts per 100,000.	Month in which maximum pollution occurred.	Year.	Elements of organic matter in parts per 100,000.	Month in which maximum pollution occurred.
1868	·45	January.	1868	·27	February.
1869	·60	February.	1869	·33	February.
1870	·42	January.	1870	·30	January.
1871	·52	October.	1871	·22	February.
1872	·48	January & December.	1872	·39	December.
1873	·46	January.	1873	·33	January.
1874	·37	March.	1874	·21	March.
1875	·49	November.	1875	·28	November.
1876	·44	December.	1876	·24	March.
1877	·40	January.	1877	·30	January.
1878	·36	December.	1878	·26	June.
1879	·38	February.	1879	·33	July.
1880	·42	October.	1880	·33	February.

Both the Thames and Lea were much polluted during an exceptionally long period of the year, and the maximum pollution, in the case of the Thames, was greater than it has been since the year 1876.

With regard to the proportion of organic elements in the foregoing table, I quote the following opinion of the late Rivers Commissioners from their Report on the Domestic Water Supply of Great Britain, p. 5:—"We consider that potable water which contains organic matter, even only partially derived from animal sources,

“ should not yield much more than 0·1 part of organic carbon in 100,000 parts of “ water.” As the organic elements mentioned in the foregoing table consisted chiefly of organic carbon, it will be seen that the maximum pollution both in the Thames and Lea greatly exceeded this standard. It would be an incalculable gain to the Metropolis, promoting both the interests of temperance and of public health, if the polluted river water which now forms its main supply were replaced by the palatable and wholesome water obtainable from springs and deep wells sunk in the chalk. Water of the latter character is now supplied only to a small portion of London by the Kent and Colne Valley Companies and by the Tottenham Local Board of Health, and the accompanying tables attest the uniform and excellent quality of this water for drinking purposes. This pure spring water is everywhere abundant in the Thames basin. In dry seasons it constitutes the whole supply of the Thames and the Lea, and, even after the most protracted drought, more than 350,000,000 gallons of it flow daily over the weir at Teddington, whilst a further very large volume of it joins the Thames lower down. At present the inhabitants of the Metropolis cannot use this water until after it has been mixed with the sewage of a large population, and used for the washing of vast quantities of filthy rags in paper mills and of linen in laundries. If even a small fraction of this prodigal supply could be collected and preserved from irremediable pollution, it would be sufficient to distribute to those very large districts of the Metropolis which are not at present supplied with such water by the Kent and Colne Valley Companies and by the Tottenham Local Board of Health.

Tables F. and G. need no comment.

Table H. shows the total weight of combined nitrogen in the waters, and this, after making a small correction for that present in average rain water, constitutes the total evidence both of past and present pollution by nitrogenous organic matter. During the spring and summer months, the combined nitrogen is much diminished by the abundant animal and vegetable life then existing in the streams, and consequently, as an indication of pollution, the combined nitrogen found during the autumn and winter months only should receive consideration. During the months of January, February, March, October, November, and December 1876, the average proportion of total combined nitrogen in 100,000 parts of Thames water was ·312 part; in the same period of 1877 it was ·291, in 1878 it was ·270 part, in 1879 ·281, and last year ·276 part. The reduction since the year 1876 is owing partly to the larger volume of water in the river, but chiefly to the greater length of time during which the water is stored by the companies before delivery.

In the same quantity of water derived from the Lea, the average total combined nitrogen was ·294 part in 1876, ·277 part in 1877, ·308 in 1878, ·310 in 1879, and ·284 part last year.

The deep-well water supplied by the Kent and Colne Valley Companies and by the Tottenham Local Board of Health is unaffected by animal or vegetable life, and the average may therefore be taken on the whole year. In 1877 it was ·458 part, in 1878 it was ·446 part, in 1879 ·317 part, and last year it amounted to ·294 part per 100,000 parts of water.

Table I. shows the quantity of chlorine found in the different samples. The results obtained prove that the tidal waters of the Thames and Lea had, in no case during the year 1880, obtained entrance to the reservoirs or filters of the water companies.

Table K. contrasts the hardness of the different waters; that is to say, the weight of carbonate of lime, or its equivalent of other soap-destroying substances, found in 100,000 parts of water. The average hardness of the Thames water delivered in London was 19°·8 in 1876, 19°·5 in 1877, 20°·3 in 1878, 20°·8 in 1879, and 20°·2 in 1880; of the Lea, 20°·1 in 1876, 20°·0 in 1877, 21°·0 in 1878, 21°·4 in 1879, and 20°·3 in 1880; of the Kent Company's water, 26°·8 in 1876, 27°·5 in 1877, 28°·4 in 1878, 28°·4 in 1879, and 26°·6 in 1880; of the Colne Valley Company's water, 5°·1 in 1877, 7°·3 in 1878, 6°·3 in 1879, and 6°·3 in 1880; and of the water supplied by the Tottenham Local Board, 26°·5 in 1877, 27°·3 in 1878, 25°·6 in 1879, and 22°·2 in 1880.

All hard water *must* be softened before it can be used for washing linen; when it is softened in detail by the laundress, the operation costs, for an equal volume of water, at least eighty times as much as it costs when conducted on a large scale by a water company. The only water fit for washing delivered in London during the past year was that of the Colne Valley Company, which was softened by lime before distribution.

Lastly, Table L. shows the annual average of each determination, and thus summarizes the average results of the analyses of the water supplied by each company during the year.

The following Table gives the results of my observations in reference to the degree of efficiency of filtration of Thames and Lea water distributed by the various companies in 1880 :—

COMPANIES OR LOCAL AUTHORITIES.	Number of occasions when clear and transparent.	Number of occasions when slightly turbid.	Number of occasions when turbid.	Number of occasions when very turbid.
THAMES.				
Chelsea - - - -	11	1	0	0
West Middlesex - - -	8	4	0	0
Southwark - - - -	11	1	0	0
Grand Junction - - -	6	5	1	0
Lambeth - - - -	7	5	0	0
LEA.				
New River - - - -	10	2	0	0
East London - - - -	10	2	0	0
DEEP WELLS.				
Kent - - - -	12	0	0	0
Colne Valley - - - -	12	0	0	0
Tottenham Board of Health -	12	0	0	0

This table shows that during the past year no company, drawing its supply from a river, delivered water at all times in a clear and bright condition; but the Chelsea and Southwark Companies approached nearest to uniform clearness, each of them having, on one occasion only, delivered slightly turbid water.

The natural filtration which the Kent, Colne Valley, and Tottenham deep-well water undergoes through an enormous thickness of chalk, renders artificial filtration unnecessary. All the 36 samples of deep-well water, being perfectly clear and bright.

When examined by the microscope, the sediment deposited by turbid water on standing is generally found to contain living and moving organisms. During the year 1880 these organisms were observed in the Grand Junction, Lambeth, and New River Companies' water.

The annexed table exhibits the results of those microscopic examinations during the past twelve years :—

NUMBER of occasions when MOVING ORGANISMS were found.

—	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.
Chelsea - -	3	2	2	3	2	5	4	4	1	0	2	0
West Middlesex -	0	0	0	0	0	0	0	0	0	1	2	0
Southwark - -	8	1	4	1	2	5	5	7	5	3	0	0
Grand Junction -	4	1	1	2	3	5	7	3	3	3	1	3
Lambeth - -	5	0	4	6	3	4	5	4	1	1	0	2
New River - -	0	0	0	0	1	1	0	0	1	0	0	2
East London -	4	3	3	1	0	2	0	0	0	0	2	0
Kent - -	0	0	0	0	0	0	0	0	0	0	0	0
Colne Valley -	-	-	-	-	-	-	-	-	0	0	0	0
Tottenham - -	-	-	-	-	-	-	-	-	0	0	0	0

I am, &c.

E. FRANKLAND.

The Registrar General, &c., &c.
Somerset House, W.C.

Water Supply of the Metropolis.

li

TABLE A.

TEMPERATURE (in Centigrade degrees) of the METROPOLITAN WATERS, as delivered from the different Companies' Mains.

COMPANIES OR LOCAL AUTHORITIES.		1880.												
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Mean.
Inner Circle.	THAMES.													
	Chelsea - - -	6·8	7·5	8·5	10·1	11·1	12·8	15·5	17·2	16·0	11·8	10·0	8·8	11·3
	West Middlesex - - -	6·0	7·0	9·8	12·1	13·8	13·4	19·5	20·0	17·8	12·0	10·0	8·0	12·5
	Southwark - - -	6·2	6·8	9·1	12·1	14·1	14·0	19·0	20·0	18·0	11·1	11·0	8·8	12·5
	Grand Junction - - -	6·0	5·0	7·8	9·9	11·2	12·5	16·0	17·5	17·0	11·5	10·0	9·5	11·2
	Lambeth - - -	6·3	6·5	7·8	11·1	11·1	13·2	17·1	19·5	17·0	11·0	10·1	8·2	11·6
Inner Circle.	LEA.													
	New River - - -	6·2	5·5	8·5	10·9	14·0	13·0	19·0	19·5	18·2	11·8	9·1	7·5	11·8
	East London - - -	5·5	6·1	8·8	11·9	13·8	13·8	19·0	19·0	18·5	11·6	9·9	7·8	12·1
Outer Circle.	DEEP WELLS.													
	Kent - - -	11·0	12·0	12·8	12·6	12·1	12·8	12·8	13·5	14·0	13·5	12·5	12·6	12·7
	Colne Valley - - -	8·3	4·4	8·2	10·0	10·5	10·5	11·1	12·2	11·6	10·5	11·1	10·5	9·9
	Tottenham Local Board - - -	—	—	—	—	—	—	—	—	—	—	—	—	—

TABLE B.

WEIGHT of SOLID MATTERS in 100,000 parts of the WATERS.

COMPANIES OR LOCAL AUTHORITIES.		1880.												
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Mean.
Inner Circle.	THAMES.													
	Chelsea - -	33·16	30·48	31·12	25·72	25·00	24·34	24·00	25·76	25·84	29·48	31·00	30·32	28·02
	West Middlesex - -	32·06	30·80	30·90	26·26	25·70	25·58	22·86	28·26	27·18	28·90	31·20	30·60	28·36
	Southwark - -	33·76	31·32	30·36	28·72	25·76	26·60	25·32	28·12	30·36	32·10	31·82	31·68	29·66
	Grand Junction - -	31·46	32·28	29·28	26·80	25·30	25·40	25·32	28·10	27·88	30·72	31·10	30·78	28·70
	Lambeth - -	35·12	33·10	31·68	29·30	26·32	27·82	22·90	30·10	29·42	31·84	33·76	32·22	30·30
Inner Circle.	LEA.													
	New River - -	33·96	31·48	29·40	27·20	24·34	27·96	26·46	27·02	29·22	29·14	31·04	30·96	29·02
	East London - -	38·74	31·28	35·92	29·98	24·62	27·24	27·92	25·44	31·90	28·40	35·58	34·98	31·00
Outer Circle.	DEEP WELLS.													
	Kent - - -	43·40	44·14	40·38	42·32	42·28	43·74	42·90	43·32	41·74	42·32	45·50	44·60	43·05
	Colne Valley - -	12·42	12·10	15·00	11·84	12·94	15·38	12·72	11·98	10·80	12·86	13·56	14·56	13·01
	Tottenham Local Board - - -	39·64	40·47	41·00	40·06	40·20	41·10	39·84	40·76	40·88	40·56	41·14	38·26	40·33

TABLE C.

ORGANIC CARBON in 100,000 parts of the WATERS.

COMPANIES OR LOCAL AUTHORITIES.		1880.												
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Mean.
Inner Circle.	THAMES.													
	Chelsea - - -	·241	·202	·225	·169	·172	·134	·145	·250	·207	·268	·294	·231	·212
	West Middlesex - - -	·094	·138	·221	·152	·153	·141	·177	·341	·389	·447	·290	·368	·243
	Southwark - - -	·277	·345	·328	·342	·227	·138	·265	·369	·354	·410	·237	·286	·298
	Grand Junction - - -	·252	·365	·227	·169	·102	·143	·210	·274	·390	·325	·190	·323	·248
	Lambeth - - -	·295	·318	·269	·332	·215	·124	·204	·404	·363	·393	·210	·327	·288
	LEA.													
	New River - - -	·217	·319	·174	·211	·166	·077	·098	·148	·165	·227	·138	·189	·177
	East London - - -	·174	·259	·243	·225	·121	·121	·191	·359	·306	·326	·245	·291	·238
Outer Circle.	DEEP WELLS.													
	Kent - - -	·087	·061	·076	·093	·076	·070	·078	·078	·085	·074	·092	·077	·079
	Colne Valley - - -	·083	·070	·070	·066	·066	·066	·051	·077	·069	·058	·076	·076	·069
	Tottenham Local Board - - -	·091	·086	·078	·068	·087	·077	·086	·081	·136	·087	·105	·107	·091

TABLE D.

ORGANIC NITROGEN in 100,000 parts of the WATERS.

COMPANIES OR LOCAL AUTHORITIES.		1880.												
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Mean.
Inner Circle.	THAMES.													
	Chelsea - - -	*037	*038	*034	*036	*044	*051	*040	*049	*036	*042	*044	*058	*042
	West Middlesex - - -	*038	*030	*026	*045	*045	*044	*028	*053	*049	*047	*041	*067	*043
	Southwark - - -	*028	*067	*051	*044	*054	*041	*044	*059	*055	*056	*042	*048	*049
	Grand Junction - - -	*040	*048	*039	*048	*038	*030	*047	*067	*045	*062	*061	*054	*048
	Lambeth - - -	*055	*039	*043	*054	*047	*032	*037	*058	*049	*040	*043	*042	*045
Inner Circle.	LEA.													
	New River - - -	*034	*035	*031	*044	*028	*023	*023	*036	*059	*042	*022	*040	*035
	East London - - -	*029	*051	*043	*046	*039	*029	*029	*052	*045	*039	*045	*036	*040
Outer Circle.	DEEP WELLS.													
	Kent - - -	*013	*015	*015	*011	*013	*017	*017	*014	*010	*019	*019	*016	*015
	Colne Valley - - -	*012	*016	*016	*015	*016	*016	*014	*017	*018	*019	*018	*015	*016
	Tottenham Local Board - - -	*008	*019	*019	*013	*018	*019	*013	*016	*019	*013	*012	*020	*016

TABLE E.

PROPORTIONAL AMOUNT of ORGANIC ELEMENTS, that in the KENT Company's Water during the
Nine Years ending December 1876 being taken as 1.

COMPANIES OR LOCAL AUTHORITIES.			1880.												
			Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Mean.
Inner Circle.	THAMES.														
	Chelsea	- -	4·7	4·1	4·4	3·5	3·7	3·1	3·1	5·1	4·1	5·3	5·7	5·0	4·3
	West Middlesex	- -	2·2	2·8	4·2	3·3	3·3	3·1	3·5	6·7	7·4	8·4	5·6	7·4	4·8
	Southwark	- -	5·2	7·0	6·4	6·5	4·8	3·0	5·2	7·1	6·8	7·9	4·7	5·7	5·9
	Grand Junction	- -	4·9	7·0	4·5	3·7	2·4	2·9	4·4	5·8	7·4	6·6	4·3	6·4	5·0
	Lambeth	- -	5·9	6·1	5·3	6·5	4·4	2·6	4·1	7·8	6·9	7·3	4·3	6·3	5·6
Inner Circle.	LEA.														
	New River	- -	4·3	6·0	3·4	4·3	3·3	1·7	2·1	3·1	3·8	4·6	2·7	3·7	3·6
	East London	- -	3·4	5·3	4·8	4·5	2·7	2·5	3·7	7·0	5·9	6·2	5·0	5·5	4·7
Outer Circle.	DEEP WELLS.														
	Kent	- -	1·6	1·3	1·5	1·7	1·5	1·5	1·6	1·6	1·6	1·6	1·9	1·6	1·6
	Colne Valley	- -	1·6	1·5	1·5	1·4	1·4	1·4	1·1	1·6	1·4	1·3	1·6	1·5	1·4
	Tottenham Local Board	- - - }	1·7	1·7	1·6	1·4	1·7	1·6	1·7	1·6	2·6	1·7	1·8	2·2	1·8

TABLE F.

AMMONIA in 100,000 parts of the WATERS.

COMPANIES OR LOCAL AUTHORITIES.		1880.												
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Mean.
Inner Circle.	THAMES.													
	Chelsea - - - - -	*004	0	0	0	0	0	0	0	0	*003	0	*001	
	West Middlesex - - - -	0	0	0	*004	0	0	0	0	0	0	0	*001	
	Southwark - - - - -	0	0	0	0	0	*001	0	0	*002	0	0	*000	
	Grand Junction - - - -	0	0	*003	0	*004	0	0	0	0	0	0	*001	
	Lambeth - - - - -	0	0	0	0	0	0	0	0	0	0	0	0	
Inner Circle.	LEA.													
	New River - - - - -	0	0	0	0	0	0	0	0	*001	0	0	*000	
	East London - - - - -	0	0	0	0	0	0	*003	0	0	0	0	*000	
Outer Circle.	DEEP WELLS.													
	Kent - - - - -	*004	0	0	0	0	*003	0	*002	0	*001	0	*001	
	Colne Valley - - - - -	0	0	0	0	*003	*004	*005	0	0	*004	0	*001	
	Tottenham Local Board - - - - -	*004	*086	*094	*084	*046	*060	*058	*058	0	*070	*092	*060	*067

TABLE G.

NITROGEN as NITRATES and NITRITES in 100,000 parts of the WATERS.

COMPANIES OR LOCAL AUTHORITIES.		1880.												
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Mean.
Inner Circle.	THAMES.													
	Chelsea - - -	*244	*232	*239	*169	*199	*141	*144	*116	*114	*149	*207	*151	*175
	West Middlesex - -	*312	*313	*257	*182	*194	*158	*144	*142	*176	*162	*233	*198	*210
	Southwark - - -	*255	*228	*258	*196	*205	*107	*123	*144	*177	*182	*278	*193	*196
	Grand Junction - -	*244	*235	*210	*196	*182	*164	*115	*142	*144	*190	*239	*197	*188
	Lambeth - - -	*261	*237	*228	*198	*201	*162	*066	*176	*167	*204	*286	*226	*201
Inner Circle.	LEA.													
	New River - - -	*277	*233	*277	*207	*192	*176	*184	*163	*208	*216	*289	*385	*234
	East London - - -	*260	*183	*222	*214	*126	*116	*102	*096	*237	*135	*258	*214	*180
Outer Circle.	DEEP WELLS.													
	Kent - - -	*352	*442	*432	*469	*382	*422	*404	*389	*455	*352	*508	*512	*427
	Colne Valley - - -	*347	*324	*324	*345	*346	*326	*363	*314	*344	*334	*391	*343	*342
	Tottenham Local Board - - -	*039	0	0	*034	*025	0	0	0	*022	0	0	0	*010

TABLE H.

TOTAL combined NITROGEN in 100,000 parts of the WATERS.

COMPANIES OR LOCAL AUTHORITIES.		1880.												
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Mean.
Inner Circle.	THAMES.													
	Chelsea - - -	*284	*270	*273	*205	*243	*192	*184	*165	*150	*191	*254	*209	*218
	West Middlesex - -	*350	*343	*283	*230	*237	*202	*174	*195	*224	*209	*324	*265	*253
	Southwark - - -	*275	*295	*309	*240	*269	*148	*168	*203	*233	*239	*320	*241	*245
	Grand Junction - -	*284	*283	*249	*247	*220	*197	*162	*209	*189	*252	*300	*251	*237
	Lambeth - - -	*316	*276	*271	*252	*248	*194	*103	*234	*216	*244	*339	*268	*247
Inner Circle.	LEA.													
	New River - - -	*311	*273	*308	*251	*220	*208	*207	*199	*267	*259	*311	*425	*287
Outer Circle.	East London - - -	*289	*234	*265	*260	*169	*145	*134	*148	*282	*174	*303	*250	*221
	DEEP WELLS.													
	Kent - - -	*368	*457	*447	*480	*395	*442	*421	*405	*465	*371	*528	*520	*442
	Colne Valley - - -	*359	*340	*340	*360	*365	*346	*381	*331	*362	*356	*409	*358	*359
	Tottenham Local Board - - -	*123	*089	*096	*116	*081	*069	*060	*063	*041	*073	*087	*069	*081

TABLE I.

CHLORINE in 100,000 parts of the WATERS.

COMPANIES OR LOCAL AUTHORITIES.		1880.												
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Mean.
Inner Circle.	THAMES.													
	Chelsea - - -	1·6	1·6	1·5	1·5	1·5	1·6	1·6	1·5	1·6	1·5	1·5	1·5	1·5
	West Middlesex - -	1·5	1·6	1·5	1·5	1·5	1·5	1·5	1·5	1·6	1·4	1·5	1·5	1·5
	Southwark - - -	1·6	1·7	1·7	1·5	1·5	1·5	1·5	1·5	1·5	1·6	1·5	1·5	1·6
	Grand Junction - -	1·6	1·7	1·5	1·5	1·5	1·5	1·6	1·5	1·5	1·5	1·5	1·5	1·5
	Lambeth - - -	1·6	1·7	1·7	1·5	1·5	1·5	1·6	1·5	1·6	1·5	1·6	1·6	1·6
Inner Circle.	LEA.													
	New River - - -	1·6	1·7	1·6	1·5	1·6	1·6	1·6	1·6	1·7	1·6	1·6	1·6	1·6
Outer Circle.	East London - - -	1·8	1·6	1·8	1·8	1·8	1·8	1·8	1·8	1·9	1·7	1·7	1·8	1·8
	DEEP WELLS.													
	Kent - - -	2·5	2·5	2·5	2·5	2·5	2·5	2·5	2·5	2·5	2·5	2·8	2·6	2·5
	Colne Valley - - -	1·4	1·4	1·4	1·5	1·5	1·5	1·4	1·4	1·5	1·5	1·5	1·5	1·5
	Tottenham Local Board - - -	2·9	2·9	2·9	2·8	2·9	2·8	2·9	2·9	2·8	2·9	2·9	2·8	2·9

TABLE K.

DEGREES of HARDNESS (1 deg. = 1 part of carbonate of lime, or its equivalent,) in 100,000 parts of the WATERS.

COMPANIES OR LOCAL AUTHORITIES.		1880.												
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Mean.
Inner Circle.	THAMES.													
	Chelsea - - -	20·0	19·4	19·1	19·5	19·1	19·0	19·7	18·5	22·4	20·6	21·8	22·6	20·1
	West Middlesex - -	20·0	19·8	20·3	19·8	19·1	19·4	18·2	19·4	20·8	20·3	21·8	20·8	20·0
	Southwark - - -	20·6	19·4	19·7	20·6	19·4	19·4	20·0	19·4	22·4	21·5	22·0	22·4	20·6
	Grand Junction - -	19·7	19·0	19·1	19·1	19·4	19·6	20·0	19·1	21·5	21·2	21·8	20·8	20·0
	Lambeth - - -	21·2	19·4	20·0	19·1	19·6	20·6	17·1	20·9	20·9	21·5	22·4	23·2	20·5
	LEA.													
	New River - - -	20·6	19·0	19·7	19·4	19·4	20·0	20·9	19·4	21·8	21·8	20·9	22·7	20·5
	East London - - -	23·0	20·0	21·4	20·3	19·4	20·0	20·9	19·4	21·8	20·6	21·4	23·6	21·0
Outer Circle.	DEEP WELLS.													
	Kent - - -	24·8	25·1	25·1	26·0	26·0	25·7	27·8	27·8	26·9	27·8	28·4	27·8	26·6
	Colne Valley - - -	6·2	6·4	7·1	3·7	4·9	8·4	6·9	5·6	6·7	6·1	6·1	6·9	6·3
	Tottenham Local Board - - -	20·8	20·0	21·5	20·8	20·8	20·2	20·5	20·5	23·6	25·7	26·4	25·0	22·2

TABLE L.

AVERAGES FOR 1880.

The numbers in this Table relate to 100,000 parts of each Water.

COMPANIES OR LOCAL AUTHORITIES.		Temperature in Cen- tigrade Degrees.	Total Solid Matters.	Organic Carbon.	Organic Nitrogen.	Ammonia.	Nitrogen, as Nitrates and Nitrites.	Total combined Ni- trogen.	Chlorine.	Total Hardness.	Proportional Amount of organic Elements, that in the Kent Company's Water during the 9 years ending Dec. 1876 being taken as 1.
Inner Circle.	THAMES.	°									
	Chelsea - - -	11·3	28·02	·212	·042	·001	·175	·218	1·5	20·1	4·3
	West Middlesex - -	12·5	28·36	·243	·043	·001	·210	·253	1·5	20·0	4·8
	Southwark - - -	12·5	29·66	·298	·049	·000	·196	·245	1·6	20·6	5·9
	Grand Junction - -	11·2	28·70	·248	·048	·001	·188	·237	1·5	20·0	5·0
Outer Circle.	Lambeth - - -	11·6	30·30	·288	·045	·000	·201	·247	1·6	20·5	5·6
	LEA.										
	New River - - -	11·8	29·02	·177	·035	·000	·234	·287	1·6	20·5	3·6
	East London - - -	12·1	31·00	·238	·040	·000	·180	·221	1·8	21·0	4·7
	DEEP WELLS.										
Outer Circle.	Kent - - -	12·7	43·05	·079	·015	·001	·427	·442	2·5	26·6	1·6
	Colne Valley - - -	9·9	13·01	·069	·016	·001	·342	·359	1·5	6·3	1·4
	Tottenham Local Board - - -	—	40·33	·091	·016	·067	·010	·081	2·9	22·2	1·8

NOTE.—The numbers in these tables may be converted into grains per imperial gallon, by multiplying them by 7, and then moving the decimal point one place to the left.

FIRES IN LONDON DURING THE YEAR 1880.

Captain Eyre M. Shaw, Chief Officer of the Metropolitan Fire Brigade, reported to the Metropolitan Board of Works that the number of fires attended during 1880 was 1871, showing an increase of 153 upon the number in the preceding year, and being 224 above the average in the ten years 1870-79. Nine per cent. of the fires attended in 1880 were described as serious, showing a decline from the proportion in recent years. Life was seriously endangered at 99 of the fires in 1880, and in 26 cases life was lost. The lives of 160 persons were seriously endangered, of which 127 were saved and 33 lost. The numbers of lives lost by fires in London in the three preceding years were 29, 25, and 32 respectively. Captain Shaw, in his Report, states that "although there has been a very large increase in the total " number of fires, the amount of property destroyed compares most advantageously " with the losses of former years." In order to facilitate the receipt of notice of fires, 6 circuits of fire alarms, with an aggregate of 40 call points, were established during the year.

The establishment of the Metropolitan Fire Brigade at the end of the year was distributed at 52 engine, 5 movable stations, 117 escape, and 4 floating stations. The number of fire engines at these stations was 151, showing a decrease of 2 upon the number in the previous year; 3 were floating steam engines, 38 land steam engines, and 110 manual engines. The number of fire escapes and long scaling ladders was 135, showing an increase of 5 upon the numbers in the preceding year. The strength of the brigade was 485 of all ranks, including the chief officer and the superintendents, and exceeded by 33 the strength in the previous year. The number of firemen employed on the several watches kept up throughout the Metropolis was 97 by day and 212 by night. The cases of injury occurring in the brigade during the year were 78, against 90, 83, and 69 in the three previous years.

The quantity of water used for extinguishing fires during 1880 was rather more than 21 million gallons, or about 94,075 tons; rather more than one half of this quantity was taken from the river, canals, and docks, and the remainder from the street pipes.

During the year there were 4 cases of short supply of water, 34 of late attendance of turncocks, and 6 of no such attendance, making 44 cases in which the water arrangements were unsatisfactory, against 56 and 60 in the two preceding years.

Number of Fires and of False Alarms attended during the Thirteen Years 1868-80, and in each Month of 1880.

YEARS AND MONTHS.		TOTAL CALLS.	FIRES.			ALARMS.		
			Serious.	Slight.	Total.	False.	Chimney.	Total.
1868	- - -	—	235	1433	1668	—	—	—
1869	- - -	—	199	1373	1572	—	—	—
1870	- - -	2188	276	1670	1946	133	109	242
1871	- - -	2046	207	1635	1842	124	80	204
1872	- - -	1671	120	1374	1494	104	73	177
1873	- - -	1703	166	1382	1548	83	72	155
1874	- - -	1750	154	1419	1573	89	88	177
1875	- - -	1668	163	1366	1529	90	49	139
1876	- - -	1787	166	1466	1632	91	64	155
1877	- - -	1708	159	1374	1533	106	69	175
1878	- - -	1881	170	1489	1659	121	101	222
1879	- - -	1949	159	1559	1718	116	115	231
1880	- - -	2194	162	1709	1871	206	117	323
1880,	January	235	13	194	207	15	13	28
	February	128	8	96	104	11	13	24
	March	172	6	139	145	12	15	27
	April	154	12	128	140	8	6	14
	May	254	26	193	219	23	12	35
	June	149	10	113	123	18	8	26
	July	166	12	129	141	21	4	25
	August	181	11	145	156	20	5	25
	September	215	19	161	180	29	6	35
	October	145	13	111	124	12	9	21
	November	202	15	159	174	18	10	28
	December	193	17	141	158	19	16	35

LONDON:
Printed by GEORGE E. EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty.

For Her Majesty's Stationery Office.

[18856.—400.—5/71.]

1881

1881

1881

INDICE